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SOME PHASES

IN THE

Evolution of Ideals in Secondary
Education

Bulletin of Information No. 9.

ISSUED BY

L. D. HARVEY, *State Superintendent.*

NOVEMBER, 1902.



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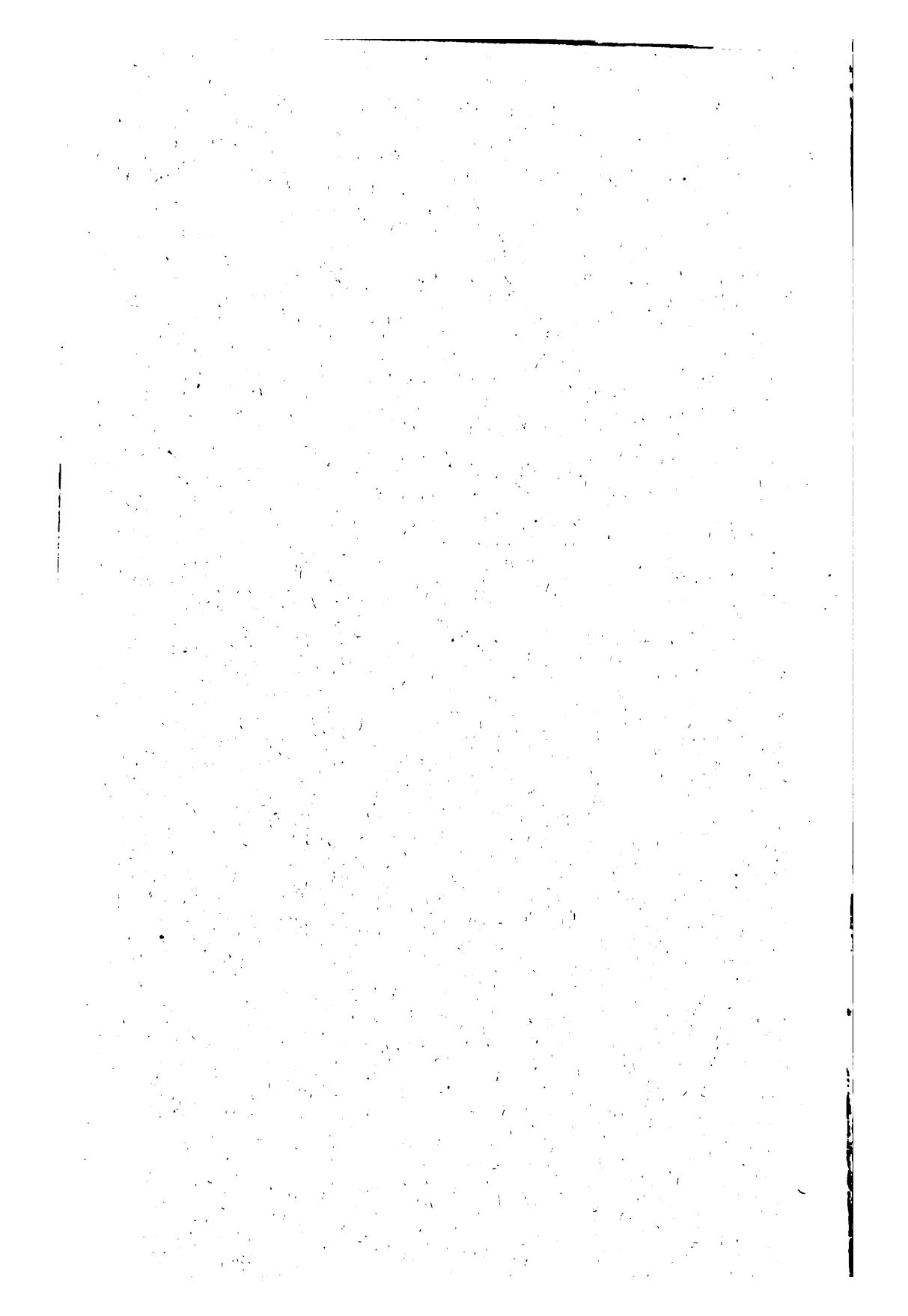
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IN THE

Evolution of Ideals in Secondary
Education

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September 18, 1902
BY
M. A. BUSSEWITZ,
Assistant State Superintendent.



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INTRODUCTION.

At no other time in the history of the world has secondary education attracted so much attention as at present. This is true not alone in Europe, where the strife between the adherents of the humanistic and the realistic ideals is strenuous and bitter, but also in the United States, where subject after subject demands admission into the high school curricula. This clamor for admission is not confined to the natural and physical sciences alone, but includes as well such practical arts as manual training, domestic economy, typewriting, and stenography. Discussions of this phase of the educational problem appear in bewildering profusion in the different educational meetings, in books, magazines, newspapers, and pamphlets. This attention is not surprising. For centuries the classical ideal of the Renaissance reigned supreme. During the last few decades the marvelous changes in industrial and social life have necessitated a change in the educational ideal for fitting the child for life in the civilization into which he is born. The modern public high school arose in consequence. In 1821 in Boston, the first of these institutions was founded. Today, Wisconsin alone has 226 free high schools, 13 independent high schools of equivalent rank, and 30 graded schools seeking admission into the rank of free high schools. This phenomenal development of the public high school is an event whose importance and far-reaching consequences cannot be over estimated.

Even less than twenty years ago waves of anti-high school sentiment swept occasionally from the Pacific to the Atlantic. Today the high school is firmly entrenched in the hearts of the American people. It is a fixed and indispensable portion of our great public school system, and receives liberal and cheerful support everywhere.

Of the many live problems in connection with the administration of these schools, none attracts wider attention than their

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courses of study. These now contain numerous subjects formerly not found in courses for secondary schools. Within the last two decades the old scholastic program has been modified by an influx of studies of more modern growth. Modern languages, a necessity in our days of science and industry, the scientific subjects recently developed, and the arts alluded to in the preceding paragraph, claim a large portion of the time. Formerly one set course of study was offered. Now the introduction into the high schools of the elective system under wise supervision is preparing the way for opening to the students fields of knowledge which heretofore have been closed to all except the special investigator.

A wide difference of opinion exists as to the advisability of such elective courses, and the extent to which they should be allowed. The educational conservatives claim that the elective system has no place in secondary schools, that it results in one-sided development since by it students are allowed to pursue only the subjects in which they are interested. They hold that the benefits accruing from early special investigation are not sufficient to offset the disadvantages of such training. The opposing element, on the other hand, holds that the elective system should be made more comprehensive still. It is maintained by them that the progress of mankind depends upon development of the talent that each member of the race possesses, that the best interests of the race are not subserved by mediocre attainments in all lines, but by the highest progress reached by individuals through specializing along definite lines. The chances for agreement between the opposing elements are not very bright at present. Perhaps it is not desirable that there should be an agreement, since the unrest in the educational world demands close scrutiny of the educational value of every subject now in the course, or seeking admission thereto, and this close examination must be productive of good results for the future. In view of the importance of these problems, I hope that this pamphlet dealing with the evolution of some phases of the ideals in secondary education may prove of interest.

A proper comprehension of our problems demands a compar-

ative study of educational institutions, past as well as present. Our high school ideals had their incipiency in the remote past. Europe derived many of her educational traditions from the Orient. America derived hers from Europe. Courses of study for secondary schools were in process of evolution across the Atlantic long before the United States became the "Land of the Free and the Home of the Brave." At first our secondary schools followed the European traditions. Recently, they have cut loose from them. In the attempt at adjusting the traditional secondary school to the demand of modern social and industrial life, we are improving upon the former educational ideal. "Westward the course of empire takes its way," has become true of education too.

In the comparative study of the secondary school systems, it becomes necessary to take cognizance of instruction received in primary and in higher educational institutions, since secondary education depends upon the primary and in turn prepares for the higher. Furthermore in ancient and mediaeval education it is extremely difficult to tell where one phase ends and the other begins.

The development of the modern high school has not been continuous and uninterrupted. History shows that fluctuations in the development of its predecessors also have been great and varied. Ancient Greece, in some components of her ideals, is still in advance of corresponding phases in the United States. The evolution does not resemble a perfect inclined plane like the one at Callao, Peru, nor the spiral road leading to the summit of Pike's Peak. It rather resembles one of our magnificent transcontinental railroads climbing the Rocky Mountains, now with a sharp upward gradient, now descending into the valley, where its altitude is but little in excess or perhaps lower, than that of a former point, then a slow incline, then upward again until the summit eventually is reached. In high school education we have by no means reached the summit. Thousands of devoted teachers, however, are earnestly striving to reach higher altitudes in the educational field by more perfect adaptation of

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school instruction to the varied needs of life. May success crown their efforts!

Attendance upon lectures given by Professor J. W. Stearns and classes conducted under his supervision in history and science of education, have proved eminently helpful in the formulation of plans herein given. The discussions also are based in large part upon principles outlined by him.

Grateful acknowledgment is made to the Librarians of the Historical Library at Madison and of the Milwaukee Public Library for their courtesy in granting me free access to the volumes and documents at their disposal. I am also indebted to the State Superintendents and State Boards of Education for their courtesy in cheerfully answering my inquiries and in submitting copies of state courses, reports, and laws relating to the establishment and operation of the Public High Schools.

CHAPTER I.

TYPES OF ANCIENT SECONDARY SCHOOL SYSTEMS.

In the solution of some of the great problems in secondary education now confronting America, it becomes necessary to

Value of This Study. study the educational systems, aims and ideals of other great nations, past as well as contemporaneous. I concede that it is questionable

whether there is anything peculiar in the systems, aims and practices of some of these nations which is directly applicable to American conditions. Each nation, like an individual, has its own instinct, genius and missions. Each must educate itself in its own way and for its own ends in conformity with the educational ideals of its civilization. Yet, the study of comparative educational systems is very valuable indeed. Its value lies not in the bodily adoption of the systems, aims and ideals of Greece, Rome or Germany, nor in the imitations of educational agencies employed by these nations. Its value lies in deducing lessons for our guidance from their successes and failures, in properly comprehending the educational factors which have contributed toward the realization of their ideals in the progress of humanity, in selecting from these those prominent ideals upon which the civilization of the race and the realization of our national ideals depend, and in taking lessons of the foreign way of adapting means to ends in the realization of great ideals.

In a historic survey of this nature, it becomes necessary to ignore many systems and to confine the discussion to a few prom-

Discussion Limited. inent races and nations. Furthermore, in discussing their secondary school systems and ideals, we must select that point of time at which each is approaching the highest expression of the national and educational ideal. Races and nations rise until at the sum-

mit of their career their educational ideal is attained. Then comes decay, but their ideals are left as a legacy to other races and other nations to be utilized in climbing new heights.

HEBREW IDEALS.

The Hebrew system of education was evolved in consequence of the efforts of its leaders to maintain the religious life and Hebrew historical traditions among the people.

Religious—Patriotic Ideal. At first the national songs and traditions were

handed down by word of mouth. At the time of Samuel, about 1050 B. C., inscription on stone was known and this was probably soon followed by writing on parchment. At first the education was confined chiefly to the priesthood, but at a later period, it embraced other classes of people. Music, dancing, and song were practiced.

Shortly after the rebuilding of the temple, another class of learned men, that of the scribes, arose side by side with the priesthood. It soon became the learned and legal class, and assumed almost exclusively the duty of educating the youth. "In addition to the central Temple and its ceremonial the Jew now had his synagogue—where, in a smaller community, he assembled, with a few of his neighbors, for divine worship, for prayer, and for instruction in the law. The latter more immediately, and gradually the former, fell entirely under the regulation of the regular interpreter of the law, who, we may say, united the professions of the clergy and the law,—the clergy considered as public instructors; for the law school and the synagogue were always closely connected, if they did not form parts of the same building." *

From the sixth to the tenth year the Pentateuch was taught in connection with a little writing and arithmetic. At that time the pupil entered upon his secondary education which continued until the fifteenth year. It consisted mainly in memorizing portions of the Talmud treating of the Laws and the history of the

*Milman's History of the Jews, vol. II, p. 411.

Hebrew race. A little later Greek, and such science, mathematics included, as was known, was taught, but the center of instruction at all times was the Talmud. By this means the ancient Hebrews were taught to be patriots. The meaning of their nationality and its great destiny received due emphasis. The great hopes of the nation were held before their eyes until they became tremendous realities. In captivity even, nothing could swerve them from loyalty to their country. They worshiped God with their faces toward the Holy City. No allurements of heathen splendor could persuade them to deviate from the paths of the true Israelite.

Our own civilization to-day bears the imprints of the ancient Hebrews. From them we derive the best statement of our relation to the God we worship. Our highest and most sacred profession finds its direct precursor in the Priests and Levites of this race. The message of the Hebrews is one of the essentials of the code that now enables each person to govern his own life in accordance with approved ideals. A system of education or civilization that has contributed such essential components to our civilization surely merits our serious consideration. Instruction in music and the history of the Hebrew nation, especially during the period of life for secondary studies, and religious instruction of home and school, were largely instrumental in bringing about the greatness of this race. The question naturally arises whether these factors are essential components in the scheme of instruction of all great races or nations. The solution of this problem will necessitate that in our study of the national systems and ideals, these phases receive proper attention.

GREECE.

In the Hebrew nation the basis and ideals of education were furnished largely by the theocracy. Among the old Greeks they were furnished by the city-state. The *The City-State.* Iliad, XVIII, 490, gives evidence that even in the Homeric period the fundamental importance of the city-state was recognized, although, at that time, it

had not yet been fully organized. There had been a gradual transition in the constituency of the nobility making up the ruling element of the city-state from ancient wealth and worth to nobility of character produced by education. This worth consisted at first almost wholly in physical courage and in the subordination of individual desires and motives to the social welfare. This was and remained the supreme ideal of the Spartans, while the Athenians pushed on beyond it through more strenuous intellectual and aesthetic education and appreciation.

The Spartan ideal necessarily was pre-eminently the militant because Sparta itself was practically a military camp organized

Spartan Education. for the training of warriors. They constituted the small group of conquerors among

a large subject population. Home life was practically abolished, and in its stead we find the camp and the school. The leading occupation of the elders was training for military life and the education of the youth for the same purpose. The training was almost wholly physical and moral. Patriotism was wrought up to the highest pitch. The sternest simplicity prevailed everywhere. The food and clothing were scant. The education consisted in thorough training in gymnastics, especially running, jumping, wrestling, and playing with spears. The youth was trained in thorough self-control in action and speech, in dignity and subjection of all emotional expression, in endurance, and in patriotic self-sacrifice. The intellectual training was incidental to the physical and moral. The little literary instruction given, consisted almost wholly of memory work in committing the laws of Lycurgus, and the national hymns and choruses. During the later period some reading and writing were taught. This meager intellectual instruction for the youth was admirably supplemented by constant association with the old, from whom they absorbed the art of conversing in an easy and agreeable manner, dignified bearing, intense love of country, admiration of courage, and much practical knowledge of state and other affairs. Music and dancing received attention at all periods and were utilized for the purpose of moral and physical education respectively. The train-

ing of the Spartans continued even after they had arrived at years of maturity. "No man was at liberty to live as he pleased; the city being like one great camp, where all had their stated allowance, and knew their public charge, each man concluding that he was born, not for himself, but for his country. Hence, if they had no particular orders, they employed themselves in inspecting the boys, and teaching them something useful, or in learning of those that were older than themselves."

* * * "Upon the whole, they taught their citizens to think nothing more disagreeable than to live by (or for) themselves. Like bees, they acted with one impulse for the public good, and always assembled about their prince. They were possessed with a thirst of honour, and enthusiasm bordering upon insanity, and had not a wish but for their country." *

The Athenean aesthetic ideal, "A beautiful soul in a beautiful body" stands out in bold contrast against the simple military ideal of Sparta. In Athens all children received some intellectual education. That of the youth of the aristocracy extended through eighteen years. In the earlier period the training was similar to that of the Spartan, but it soon outgrew the narrowness of content. The education was not obtained under state authority, but was received at home, or more frequently in private schools. It was not so severe nor so prolonged as at Sparta, and after the sixteenth year it permitted much freedom. The early formal education included instruction in music, gymnastics, and dancing for the purpose of developing a sound and beautiful physique, self-possession, and dignity of bearing. On the intellectual side it included reading, writing, the mastery of Homeric poems, national myths, religious customs, and laws. The dominant motive of education was the preparation for active Athenean citizenship in accordance with moral and social customs. Three periods are distinctly recognizable in the Athenean system of education. During the first period, reading

*Plutarch's Lives, Langhorne translation.

and writing were taught and some of the myths, and Homeric poems were memorized. This was followed during the second period by instruction in arithmetic, grammar, and literature. At the age of twelve the boy was introduced to the beauties of poetry, rhetoric, music, mathematics, and philosophy.

In the beautiful islands of the Aegean seas, and in the valleys and mountains of one of the most beautiful peninsulas in all climes it was natural for the Greeks to acquire strong feelings for the beautiful, the picturesque, the sublime, and to become lovers and embodiments of beauty. These emotions received careful attention at the hands of the teachers. Music was taught not merely as a source of amusement, but on account of its ennobling tendencies upon the soul. In the palaestra they were taught running, leaping, discus and spear throwing, and wrestling, not for the sole purpose of developing strength and endurance, as in Sparta, but for the purpose of securing symmetrical development of the body. In this institution and also in the music school, patriotism, courage, modesty, and politeness were inculcated and practiced at all times.

The elementary and secondary education extended from the 7th to the 16th year. At this time the youth was admitted to the public gymnasium. Training in this *Higher Education*. institution continued for two years. The exercises consisted of running, leaping, boxing, and wrestling, under the supervision of a state officer. This training corresponded somewhat to our higher education. No intellectual training at this period was provided, since it was assumed that the youth would receive from attendance at courts and public meetings, and from intimate contact with older men a knowledge of the practical application of the principles requisite in the administration of state affairs. At the age of 18, if duly qualified, he was graduated with impressive ceremonies with the degree of cadet. This admitted him provisionally to most of the rights and prerogatives of Athenian citizenship.

At a later period in Greek history the changes in education

were numerous, but were most pronounced in secondary and higher education. Changed conditions relative to greater ease and luxury in home life affected the training of the youth. This trend was enhanced by the greater security of the state, which obviated the need for some of the old-time severity.

About the middle of the fifth century B. C. arose a set of teachers of superior grade, distinct from both philosophers and artists, who prepared their pupils, not for any particular study or profession, but for civil life in general. They supplemented the instruction in music, gymnastics, reading and writing with a liberal education consisting of instruction in what came to be called the trivium,—grammar, rhetoric, and logic. The number of these teachers rapidly increased and for nearly one hundred years the sophists were the undisputed leaders in liberal education. The literature of the age and also the philosophy was greatly influenced by this class, but with that we are not directly concerned. We find here for the first time in secondary education a strong representation of the literary element. Their teaching had a decided influence on the education of such men as Pericles, Thucydides and Euripides. Most of the time of the sophist was spent in personal instruction in the three subjects mentioned. It was now expected of every Athenian citizen to be able to defend his own rights and defend his own personal views on all public questions.

The disciples of these teachers were not the equals of their masters in ability. In addition to this a class of imitators arose, who brought the entire sophist movement into disrepute by their extravagant claims. Under their teaching mere rhetorical form was emphasized. They drew most of their patronage from those persons who were dominated chiefly by the hope of success in political life.

The instruction in the gymnasium also declined in severity, yet, during all these periods it played an important part in the

Education for Governing Class. life of the Athenians. While the instruction was nominally open to all young men born of free parents, yet only those who had finished a regular course in the palæstra were fitted for taking the instruction in the exercises there offered. The higher state offices were confined to the regular graduates of the *gymnasia*. It is evident, therefore, that the Athenians utilized the secondary and higher education as a somewhat direct preparation for the higher functions of civic life, since all those who had not taken the regular courses were excluded from the higher offices within the gift of the state. Although Athens was a pure democracy, its citizenship, even in its palmiest days, did not exceed 25,000 members, which was about one-tenth of the entire population. While these citizens were nominally the ruling class of the Athenians, we have seen that the real power was designed to be wielded by the members of the aristocracy, who had taken the course of instruction in the palæstra and *gymnasia* as prescribed by the laws of Solon. This made an aristocracy of learning the real sovereign of the state.

The Hebrews utilized the national history, music and dancing for developing a religious patriotic citizenship. Athens utilized the same forces and extended their usefulness by the direct introduction of the aesthetic and literary element. It also emphasized the fact that the recognized ruling class must be prepared for the discharge of their duties by the highest training that the civilization of the state affords. Of the ancient nations, Athens contributed the best ideal of physical, aesthetic, and literary training. We shall come across these different phases of education again in our discussion and shall find how their ideal of the limited ruling class was changed by including other classes and by the introduction of new methods in the preparation for life.

ROME.

Under the Republic, Roman education aimed at preparation for full Roman citizenship, civic, military, economic and oratorical. "A sound mind in a sound body"

Roman Ideals. was the key note. It was productive of moral courage, vigor, governing power coupled with legislative disposition, and a keen perception of the relative rights of men in the matter of property. While at this period the Romans had some point of contact with the Spartans, they differed decidedly in several essentials. In Sparta the individual was almost entirely lost in the State, while the Roman had strong and intense individuality, which, however, freely gave itself to the performance of civic and other public duties for the general good. They were also superior to the Spartans in recognizing the family as the unit of the state, and in the honor and respect paid to the wives and mothers.

The educational system was under control of the family, and was largely moral, social, and to some extent military in character. The chief factors were the moral and religious training of the home, the free intercourse with father and mother, and systematic observation and direct imitation of the master on the farm, or in the army, courts, or forum. In the early period, no opportunity for intellectual training was given, except in memorizing the laws of the twelve tables.

Under the emperors, instruction in the home, camp and courts was supplanted by instruction in the school. It became in course of time almost wholly literary, but the practical Romans never neglected to emphasize its disciplinary side. The movement inaugurated in Greece by the sophist in literature and oratory received marked attention during this period, in consequence of the utilitarian inclination of the Romans toward government and legislation. Music and sculpture were left mainly to the Greeks.

About 300 B. C. evidences of the existence of schools occur,

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Instead of family instruction, several families combined and secured an educated slave, or perhaps a free-
Rise of Grammar Schools. man, to give instruction in reading, writing, and arithmetic to their children. Soon after this the grammar school appeared, and with it came the true beginning of literary education in Rome. The earliest grammar school was established by Livius Andronicus about 233. His Latin translation of the *Odyssey* was made the basis of grammar school instruction. To this was added work in Latin grammar and in Greek.

About 140 B. C. another type of school appeared, which was well patronized by the Romans: the school of the rhetorician. Some rhetoric was taught in grammar schools, but the rhetorical school made a specialty of it. These schools were based upon the Greek tradition and furnished instruction and training in declamation and debates. The practical Romans were fully aware that the skill could not be gained from school alone, but that contact with actual life was essential. "For it is not with the oratorical power and faculty as with others, which are exercised within certain precise and determinate limits; on the contrary, he alone can justly be deemed an orator, who can speak on every subject gracefully, ornately, and persuasively, in a manner suitable to the dignity of his subject and with pleasure to his hearers.

* * * In order, however, to attain these eminent qualifications, they did not think it necessary to declaim in the schools, and to exercise their tongues and their voices alone upon fictitious controversies, remote from all reality; but rather to fill their minds with such studies as concern life and manners, as treat of moral good and evil, of justice and injustice, of the decent and the unbecoming in actions, because these constitute the subject matter of the orator; for in the courts of law we generally descant on equity; in deliberations, on moral rectitude; whilst yet these two branches are not so absolutely distinct, but that they are frequently blended with each other. Now it is impossible to speak on such topics with fulness, variety, and elegance, unless the orator is perfectly well ac-

quainted with human nature; unless he understands the power and extent of moral duties, the perversity of vice, and other things besides, which do not partake either of vice or virtue.”*

The Romans added the utilitarian element to the physical and literary ideals of the Greeks. Music was studied by them mainly for the rhythm and not as an art. They preferred the horn and the trumpet to the lyre and cithara of the Greeks. Instruction in gymnastics was given for purely hygienic and military purposes. Only literature was studied for its own end. In all other subjects an almost pure utilitarian aim prevailed. The combination of these ideals produced marked results. Under them was devised and administered a central government. Under them were formulated the civil law and civil forms which are standard even in our own day. They produced dignity and self-respect, which made the humblest citizen in the best days of the Roman civilization a king fit to rule the peers of the realm. They inculcated obligation to law and duty, reverence to father and mother, and strong feeling of personality. This feeling, however, did not interfere with the ready and proud offer of service when the interests of the state demanded it. They were instrumental in producing illustrations of high types of manhood and womanhood embodying the virtues of courage, justice, integrity, perseverance, and fidelity. Rome’s ideals are represented in our scientific courses; Athens’ ideal of intellectual culture finds a place in our classical courses.

* Tacitus.

CHAPTER II.

MEDIAEVAL AND MODERN CONTINENTAL SECONDARY SCHOOL SYSTEMS AND IDEALS.

GERMANY.

Among the European nations the German secondary school system, ideals, and practice, so far, take the first rank. A study of her system gives us the essentials of *Germany's System* this class of schools on the continent, because *the Type*. the other nations have patterned after her. Even France remodeled her educational system in accordance with the German type in 1830, and again after her national disaster of 1870. England also made Mr. Arnold's study of German secondary schools in 1856 the basis for some improvements in her home schools.

At the beginning of the seventh century Germany was still enthralled in heathendom. With the advent of the messengers of the Gospel came the school. The *Early Schools*. church recognized early the necessity of supporting the tenets of the Christian faith by educating those designed for the priesthood. In conformity with this ideal, schools were at once founded at Reichenau and St. Gall. These have become famous as models after which all schools of northern Europe during that period were patterned. At the beginning of the eighth century the Gospel was spread far and wide, not only by the missionaries from the South, but also by members of the Benedictines from the North. Native missionaries were in great demand, hence monasteries and schools grew up side by side and became centers of educational influence as well as training schools for mis-

sionaries. The school at Fulda especially attained great renown and even now ranks high among the schools of Germany.

Since the preparation of the pupils for the priesthood was the function of these schools, all instruction proceeded naturally from the clergy. Their course of study

Limitations. was planned for the purpose of promoting the work of the church. Though theoretically composed of the trivium,—grammar, rhetoric, logic—and of the quadrivium,—arithmetic, geometry, astronomy and music—the church language and singing always stood first in the curricula and later on usurped nearly all the time that should have been devoted to the study of the other branches.

In the course of years these schools greatly deteriorated. Their function had become too narrow for the times. Charle-

Alcuin's Influence. magne, viewing with regret this state of affairs, set about to secure some reforms. He required the clergy to teach reading, arithmetic, and singing, as well as religion. Invitations were sent to renowned scholars of Europe to come to his court. Some accepted the call. Of these, Alcuin, England's distinguished scholar, became a power for good in the educational interests of Germany. Under his influence, schools again multiplied. Their sphere was enlarged. The function of the schools ceased to be wholly ecclesiastical. The national self consciousness now so prominent in Germany sprang into existence then.

Charlemagne, Alcuin and many others desired earnestly to form a great empire in strict harmony with the church. It was

Rise of National Self-Consciousness. clear to Alcuin that for the realization of this aim the common people would have to be rescued from barbarism and taught by a Christian education thoroughly to appreciate the value of Christian citizenship. Alcuin's plans received the hearty approbation of Emperor Charles the Great, as the following extracts from his famous proclamation will show: "As it is our desire to improve the conditions of the Church, we make it our task to restore with watchful zeal, the study of letters, a task al-

most forgotten through the neglect of our ancestors. We would therefore enjoin our subjects, so far as they may be able, to study the liberal arts." At another time: "Let there therefore be chosen for this work men who are able and willing to learn, and also desirous of instructing others, and let them apply themselves to the work with a zeal equaling the earnestness with which we recommend it to them."

Under the influence of this pressure and of this conception of the function of schools, the monastic schools were rapidly reformed and enthused with new life and activity. Their numbers increased. But by far the most important step in the direction of improvement, was the extension of the plan of admitting of laymen to these schools. There was much prejudice among the clergy against this, but the doors, opened to outsiders never so cautiously at first, soon swung open a little farther, and were never afterwards closed entirely for them.

A fine start was made in the direction of improvements, but both impulse and result largely vanished under the weak successors of Charles the Great. The schools again deteriorated, to be revived by the Renaissance and Reformation.

The curricula in these schools varied a trifle with the fluctuation of the ideal. In its essentials each consisted of the mastery of the Latin tongue, committing the Psalter to memory, reading, writing, a little arithmetic, and church music. The ideal of mediaeval education may be designated as Other-Worldliness. Education aimed at its realization. Although culture for its sake as understood by the Athenians suffered in consequence, the benefits resulting from the spread of the Gospel more than offset the defect alluded to.

Scholasticism arose during the ecclesiastical age, and probably reached high water mark during the thirteenth century, when its doctrines were expounded by Thomas Aquinas, Duns Scotus, and other noted thinkers. Its aim, to render the dogma acceptable

Curricula in the Schools of the Middle Ages.

Scholasticism.

to reason, necessarily brought about an alliance between the theology of the mediaeval church and Greek philosophy. This modified the curricula of institutions for higher instruction, but it appears that there are no records as to the extent to which those in secondary schools were affected. In the higher institutions, it developed strong inductive reasoning power and revived to a certain extent the interest in scientific studies, but the dogmatism of its staunchest adherents deprived it of the fruit which it might have borne.

Chivalry, to a certain extent, interfered with the highest development of erudition and its accompanying aims. The ideals

Chivalry. of chivalry as seen in the Ritter Academie, though modified by the Christian religion, remind us of those of ancient Athens. They consisted of success in chase, tournament and battle, of writing verses, and singing ballads. For this purpose the youth was taught riding, swimming, archery, fencing, hunting, chess playing, music, and rhyming. While these themselves were not antagonistic to the ideals of the times, they tended to produce the impression that study of books was effeminate, and in this way chivalry interfered with the development of the intellectual ideal in the castle. It was productive of good results, however, since their aim at physical perfection offset the aim of the clergy to mortify the body for spiritual gain. It also established higher standards of courage, honor, politeness, courtesy and respect for ladies. We are also indebted to it for our conception of romantic love. Had their ideal been coupled with the literary ideal of the age, it would have resulted in a higher civilization than could be attained with either ideal alone.

In cities, industrial and commercial considerations demanded that more attention be given to the vernacular and to the com-

Rise of Cities. mon branches, yet, since the permission of the bishop was needed for the foundation of any school, even the Rath-schulen (city schools) did not differ essentially from the Dom and Kloster Schulen (cathedral and cloister schools) in organization, curricula

22 EVOLUTION OF IDEALS IN SECONDARY EDUCATION.

and methods of instruction. Their aim, however, was to prepare for business and citizenship instead of for the clergy. While they placed somewhat less emphasis on Latin and singing, and more upon the vernacular, yet they became the typical Latin school when the cities reached their zenith in the fifteenth century and in the course of time developed into the German Gymnasia of the present.

FORCES THAT MODIFIED THE IDEALS.

So far the school has been looked upon as a servant of the church—a position she has well and honorably filled for a long period. At present the school has become the handmaid of the state. What forces produced this far reaching metamorphosis? They were those that brought on the Renaissance, that great intellectual movement which marks the transition from mediaeval ages to the modern world. This mighty chain of progress of which the Reformation was but a link, brought about a very marked change in the attitude of minds and ideals of life. While it began substantially as a revolt against a life bound up on all sides by ecclesiastical tradition and intellectual tyranny, it soon claimed the entire liberation of reason and at all times sought to revive the spirit of the arts and graces of the classical age of Greece and Rome. The newly revived spirit of the classical languages and literatures of Greece and Rome without any of the narrow traditions imposed upon them by ecclesiastical and other authorities powerfully aided the Reformation and the other movements. Under its impulse a new ideal was evolved through zeal for the Litterae Humaniores and later, Ciceronian Latin, which had much deteriorated in the period preceding the Renaissance, once more became the recognized medium of communication among the learned everywhere. Greek which had received but scant attention during the middle ages was now brought into prominence. Soon everything classic was studied with almost indiscriminate avidity, and erudition received the greatest homage ever paid it in the history of the world.

The humanistic ideal of the Renaissance completely shattered within twenty years the ideal of scholasticism. Hav-

ing made learning popular, these forces became cumulative by developing a desire for general culture and general enlightenment. When studying the transition we discern among others the influence of the work of Dante, Petrarch, and Boccaccio; of Copernicus, Kepler, and Galileo; of Guttenberg, Torricelli, Pascal, and Newton; of Columbus; Magellan, and DeGamo; of Bruno, Bacon and Descartes; of Reuchlin, Agricola and Erasmus; of the Crusades, Reformation and Jesuits. The Great Educational Reformers were also potent factors in this change of ideals. It is beyond the scope of this paper to trace the influence of each of these factors. I must confess that the temptation is strong to give space to this very interesting phase of History of Education, but it would be unwise to do so. Hence I will content myself with a few sketches of the most important factors.

With the reformation in religion we are not especially concerned, except in so far as it affected the educational ideals,

Influence of Reformation. Luther, conceiving the necessity of a national education as the best protection of his work,

in order to make the Reformation effective set about to achieve this end by a system of universal education. Although his plan was not fully carried out during his life, the foundation for it was laid. He formulated a course of study for the elementary school system. The German language including reading and writing and religion, formed its backbone. It also provided for elementary instruction in arithmetic, geography, history, and music. This with drawing and elementary science added is essentially the course in the German elementary schools to-day. Its purpose was to lay broad and deep an intelligent foundation for patriotic citizenship, based upon the Christian religion.

Influence of Sturm. John Sturm, rector of the Strasburg Gymnasium from 1538 to 1583, thoroughly systematized the curriculum of humanistic education. His scheme became the pattern of secondary education down to our own time.

The Gymnasium course covered nine years. Seven of these were spent in the mastery of Latin, and the last

two in the acquisition of a pure Ciceronian style of expression. Sturm's scheme provided also for a five years' collegiate course, during which the student was trained to become an elegant and eloquent speaker. The detailed course, still extant, gives the best illustration of instruction in humanism in its purest form. Latin was exclusively taught, read, spoken, and written every day during the first four years of the course. During the last years of the course Greek was thoroughly taught in addition to the work outlined for instruction in Latin. Systematic work in logic and rhetoric was given during the last year but mathematics and other branches received but little attention.

The Jesuit order had a most remarkable career. It was founded in 1540 by Ignatius Loyola, and at once set to work to acquire some control of the educational machinery of all Catholic countries.

Influence of Jesuits. This it gradually accomplished. In 1710, it had 612 colleges, 157 normal schools and 24 universities. One of these colleges, Clermont, had an enrollment of 3,000 students in 1675. The order was suppressed in 1773. Though revived at a later date it never regained its former prestige. This body of men was organized for the purpose of starting a counter-reformation. Its members endeavored to bring back the wanderers to the fold of Rome by means of preaching, confession, and education. They substituted for the old monastic regime of incessant punishment—mainly corporal, an elaborate system of rewards. Kindness, thoroughness in the few things taught, repetition, and emulation were their key words. Authors were selected who portrayed incidents in human life or history in rich variety and in beautiful form rather than those whose works demanded scientific pondering and disputations. Secondary education was the field of this society. The course consisted of six years. The first year the rudiments of Latin were studied; Latin Grammar, the second; Latin syntax, the third; philology and verses, the fourth; rhetoric, the fifth and sixth. Greek was subordinate, and arithmetic, geography, and history received but scant attention. This course does not differ materially from that in use in many secondary schools of that period. In

fact, it was borrowed in its essential features from their Protestant enemy, John Sturm. While they erred in confining their education to boys, in the excessive use of emulation, in their system of espionage, and in repressing originality and independence of mind, love of truth for its own sake, and the power of reflecting and forming correct judgments, education is indebted to them for valuable contributions to the realm of methods. They attended carefully to the health and physical comforts of their students, endeavored to win their confidence and made learning pleasurable. Their instruction was entirely gratuitous. This no doubt greatly aided their popularity.

As a result of the numerous inventions and discoveries during the sixteenth and seventeenth centuries, new industries arose and commercial activity was greatly enhanced.

Changed Conditions. This produced a great change in the civilization of the age. The Great Educational Re-

formers of this period and in the two centuries following endeavored to change the subject matter and methods of instruction so as to fit the child for the civilization into which he is born. They were largely instrumental in bringing about the conception that education is a development of the whole man; that educational methods must follow the order of nature, and that all instruction should make for character. They succeeded nobly in this, but in the adjustments of the claims of Humanism and Utilitarianism no consensus of opinion was reached.

The terrors of the Thirty Years' War, the successes of Frederick the Great, the oppression suffered under Napoleon, and his final overthrow were also powerful factors in Germany in still farther removing the school from the authority of the Church and making it an instrument for developing patriotic citizenship.

The methods used for securing this have undergone more changes than did the curriculum. While Prussia lay helpless

Pestalozzian Methods. at the feet of Napoleon, Humboldt, Prussia's great Minister of Education, secured the introduction of Pestalozzian methods. Music, one of Pestalozzi's instruments of culture was made the vehicle

of patriotic songs. All this aided in producing a national self-consciousness, and finally in 1872 Aleiun's dream was realized at Versailles.

Originally the German schools were organized to support the tenets of the Christian faith. This work was nobly done. The schools have always been strong agencies in the realization of the highest spiritual ideals of the German people. Now, since the union of church and state, they have been taken over bodily into the service of the broader national life. Their aim now is to produce a religious and patriotic citizenship. The elementary school has reached a fairly full realization of this ideal. Can as much be said of her secondary school system?

The German Gymnasium, though owing its earliest incipency to the church for the purpose of according professional training for the clergy, is a more direct outgrowth of the Ratschule. At first, of necessity it emphasized instruction in Latin, Greek, and Hebrew, especially the first.

While the Renaissance and the Reformation produced some changes in the curricula, yet on the whole, the main purpose practically remained the same. The Protestant church also demanded for its ministers a liberal education. Very soon, however, the admiration for the ideal of erudition caused these schools to open their doors to all who desired a preparation for higher intellectual life.

During the period of Prussia's greatest humiliation a compromise program was formulated by Frederick Wolf, one of the followers of Humboldt, and a firm believer in classical studies. During all periods, notwithstanding the many excellent features of the Renaissance, some defects were noticeable. Originality and spontaneity were often checked by the pedantry of the adherents of the system. It also degenerated in places into idolatrous worship of the classics. The worst ancient works were more highly prized than the best production written in the mother tongue. These defects were not so noticeable in Germany, yet

at the beginning of the 19th century it was felt that the vernacular did not receive in secondary education the attention it deserved, since the gymnasia were working under strict humanistic ideals and therefore devoted most of their time to the study of the classics. The spirit and ideals of the time now demanded a place for realistic studies in the curriculum, and also demanded that more time be devoted to the study of the mother tongue. Wolf's Gymnasium therefore started with the compromise program arranged as follows:—Latin, 8 hours a week; Greek, 7; German, 4; mathematics, 6; history and geography, 3; religion, 2; science, 2.

In the realm of methods Wolf accomplished still more than in the formulation of curricula. He aimed at all times to bring about a harmonious unity between culture and discipline, form and substance. Under the influence of this impulse the purpose of the gymnasia became "the development of all the faculties in every possible direction. To this end, a study of the ancient languages is regarded as of the utmost importance; for, by cultivating the Greek and Roman languages and literatures we acquire skill in all mental operations. The grammar assists us greatly in formulating our ideas; the classical poets awaken our sense of the aesthetic, and cultivate a taste for beauty and simplicity; the study of the historical and philosophical writers broadens our horizon, fills us with noble sentiment and furnishes a historical basis for the proper conception of the present. The study of mathematics ranks next in importance, and also furnishes an excellent training to the faculties. The new era despises the utilitarian and encyclopedic attainments so highly valued by the previous epoch. True human culture, and not utility, is its aim. It is characteristic of ignoble souls to appreciate only what is absolutely utilitarian, and to overlook entirely the importance of a free, beautiful and perfect culture of the inner life." *

In recent years the amount of time given to Greek has been

*Paulsen, Forum, XXIII, 5; 606-7.

reduced and more has been given to science. English, also, has been introduced.

This concession did not satisfy the opponents of the classical ideal. Director Spilleke, of Berlin, in 1822, began in *Founding of Real School.* real earnest the agitation for a non-classical high school. Before 1832 the Real Gymnasia, omitting Greek, and providing for instruction in modern studies and Latin, and the Real Schule with a wholly modern curriculum were in successful operation. The secondary schools were reclassified in 1882, in 1891, and again in 1902.

That a very strong feeling looking toward a modification prompted the reclassification in 1891 is evidenced by Emperor William's address at that famous conference of secondary school teachers in December, 1890, to discuss ways and means of improving these schools. Talking of the existing practice, he said:—

"First of all, a national basis is wanting. The foundation of our gymnasium must be German. It is our duty to educate men to become young Germans, and not young Greeks or Romans. We must relinquish the basis which has been the rule for centuries—the old monastic education of the Middle Ages, when Latin and a little Greek were most important. These are no longer our standard; we must make German the basis and German composition must be made the center around which everything else revolves."

Again in his order of May 1, 1899, he says: "The prime object of the schools will be ever to lay the foundation for a sound comprehension of both civic and social relations, by cherishing reverence for God, and love for the fatherland. But I cannot fail to recognize that in a time when the errors and misrepresentations of social democracy are spread abroad with increased zeal, the school is called upon to make increased efforts to advance the recognition of the true, the real, and the possible in the world. The school must endeavor to create in the young the conviction that the teachings of social democracy contradict not only the

divine commands and Christian morals, but are, moreover, impracticable and in their consequence destructive alike to the community. The school must be for the purpose of bringing the new, and the newest history of the times more than hitherto into the circle of the subjects of instruction, and show that the power of the state alone can protect for the individual his family, his freedom, and his rights. And it must bring the youth to know how Prussia's kings have exerted themselves to elevate the condition of the laborers, in a continuous development from the legal reforms of Frederick the Great and from the abolition of serfdom to the present day. Moreover, the school must show, by statistics how considerably and constantly in this century the wages and condition of the laboring classes have improved under this monarchial protection."

As a result of the reclassification of courses in 1891 the courses in each institution are nine years in length. However,

Present Status. graduates of the Gymnasium only are admitted to all courses in the Universities and to higher Military and Naval service. Graduates of the Real Gymnasia are admitted to the Poly-technic schools and to courses in the University having modern languages only. The Real schule is designed to fit its graduates for leadership in industrial pursuits, and not for the higher institutions of learning. These modern institutions have become strong opponents of the gymnasia and at present the fight between the adherents of the two ideals is very bitter. In consequence of the recent growth of industries and of colonial expansion, the demand for courses strong in modern languages, mathematics, and natural science has become more strenuous still. The gymnasia are charged with representing ideals not in accordance with those of the age. The modification in 1902, known as the Kiel decree, makes Greek optional in the gymnasia with English; it increases the time given to the study of Latin, but mainly in the interests of German national feeling and German language. The realities are also accorded more time.

I concede that they can be made more effective for Germany's

ideal if the Emperor's plan is followed, but whether the complete abandonment of the humanistic plane for the utilitarian will subserve the highest interests of the race, is another question. Under present conditions these different grades of school emphasize still farther the social strata of the empire. The gymnasia are designed exclusively for the directive and professional classes, while the Real Schulen provide the leaders in industrial pursuits.

It is not necessary for our purpose to examine into the educational aims of secondary education in other countries, since their systems are patterned to a considerable extent after the German, as has been shown on another page. While France professes to be par excellence the land of the humanities on account of her classical literature and on account of her artistic temperament which adds the aesthetic element to all things, yet the struggle between the utilitarianism and humanism is as sharp there as anywhere. England's Grammar and Great Public Schools still retain in a large measure the humanities of the Reformation. These schools in their games, however, approach closer in spirit and value to the national Greek games than any schools of any other nation. In this discussion Gewerbe and Polytechnic schools have been omitted since their aim differs widely from the class of schools under consideration.

CHAPTER III.

UNITED STATES.

EARLY SECONDARY SCHOOLS.

The history of the secondary schools repeats, in a large measure, the history of the European secondary schools. Two

Source. distinct and opposing influences were at work shaping the educational, as well as social and industrial life of the colonies. The first of

these was a spirit of protest against European traditions and institutions which many of the colonists had brought with them from the old world to the new in their search for greater freedom. The other factor was the instinct of imitation ever present in the human race. The earliest American settlers brought with them from their respective homes across the Atlantic, as their educational dower, definite ideals of schooling. While these were modified in places to a slight extent by the antagonistic spirit mentioned, yet it was so natural to imitate, that the New England grammar schools patterned directly after the English grammar schools in form and course of study, that the academies became reproductions to some extent, of the great public schools of Rugby, Eton, West Minster, etc., and that the Dutch in New York reproduced the characteristics of schools in Holland, and the Swedes in Delaware those of Sweden. In view of this, it is surprising to note the similarity in the form and curricula of the secondary schools in the different colonies. This is explained by the fact that there was a fair degree of similarity in the secondary schools of the deciding European countries at that time.

Secondary education in America presents three well defined

stages of development. First, in the colonial period, the Latin Grammar school, based upon the European tradition, was in vogue. The Academy followed during the period extending approximately from the Revolutionary War to the middle of the 19th century. The Academy in turn was supplanted by the public high school, which developed into the form we now know.

NEW ENGLAND.

The Massachusetts grammar schools were the "pioneers" of secondary education in the New England states. They served as models for the neighboring colonies, hence it will suffice if the development of these schools is given for the typical New England colony.

The Puritans fleeing from civil and religious oppression, knew from their training in English grammar schools and universities the value of secondary and higher *Early Schools.* education. They were conscious perhaps that they were laying the foundation of a nation, and therefore determined to lay that foundation broad and deep upon religion and liberal education as understood at that time. Harvard College was founded in 1638 in accordance with these ideals. The first college session was held in 1638, and the first class of graduates of an American college went forth from its walls in 1642. For the times, Harvard's standard of scholarship ranked high. This is shown by the following extract from its admission requirement: "When any scholar is able to understand Tully, or such like classical author extempore, and can make and speak true Latin in verse and prose; and decline perfectly the paradigms of nouns and verbs in the Greek tongue, let him then, and not before, be capable of admission into college."

The renaissance ideal in the New England secondary school was strongly modified by the religious ideal of the age. The following law passed in 1654 by the general court, leaves no doubt as to that: "For as much as it greatly concerns the welfare of this

country that the youth thereof be educated, not only in good literature, but sound doctrine, this court doth therefore commend it to the serious consideration and special care of the overseers of the college and the selectmen of the several towns, not to admit or suffer any such to be continued in the office or place of teaching, educating, or instructing of youth or child in the college schools, that have manifested themselves unsound in fayth, or scandalous in their lives, and not giving due satisfaction according to the rules of Christ."*

The colonial grammar school accordingly taught Latin and a little Greek. Instruction was given in religion, but little else was added to the classical languages. The grammar schools were preparatory schools, pure and simple. These preparatory schools and the colleges were intended especially for the directive and professional classes. The social grades were sharply distinguished in the colonies after the manner of the European tradition. There was the same lack of articulation with the elementary schools that then existed and still exists between the continental secondary and elementary schools.

The grammar schools of this period exercised a kind of selective function. They discovered talents, aptitudes, and latent capacities for the higher studies and started and encouraged capable youths on the way to college. The boys who showed capacity of a lower grade or of a different kind, received but scant attention or encouragement in those days. There is no evidence of a middle grade of school for the needs of the middle classes in society. No provision whatever was made for girls beyond occasional instruction in the merest rudiments of learning.

Similar legislation was enacted in the other New England states. Connecticut, in 1676, ordered that "Every town should mayntaine a Latin Schoole" and that every town that failed to do so was to pay a fine to the next adjoining town. These schools were to be maintained "by way of rate except upon

*Mass. Colonial Records, 1647, Vol. II,

condition that any town shall agree upon some other way to rayse the mayntenance."*

Grammar schools were established in Boston, Salem, Dorchester, and several other places before 1647, through the influence of Governor Winthrop, John Cotton, *Growth.* and others. After the passage of the famous

law of 1647, the number of these grammar schools increased steadily until the Revolutionary War, when their places were filled in part, by the academies.

SOUTHERN COLONIES.

Virginia is the type of this section. Her conditions were not favorable to a rapid development of an entire educational system. The first colonists were as a rule, *Slow Development.* venturers, desiring to make their fortune and then return to England. Those who followed were descendants of aristocratic families, and settled on large plantations far apart, in accordance with Locke's "famous model." The spread of negro slavery helped to increase the dislike for popular education. The wealthy plantation owners saw no necessity for the establishment of schools. They had private tutors for their children, and the talented and advanced were sent to the mother country for secondary and higher education.

In the course of time, however, the need of a home college became apparent, and the legislative assembly in 1660 passed the following resolution:—"That for the advance *William and Mary's College.* of learning, education of the youth, supply of ministry, and promotion of piety, there be land taken upon purchase for a college and free schools, and that there be, with as much speed as may be convenient, housing erected thereon for the entertainment of students and scholars."

The ideals and purposes of college education in this section are well pointed out in this paragraph; and again in the following paragraph from the college charter: This college was

*Laws of Connecticut, Vol. II.

founded "To the end that the Church of Virginia may be furnished with a seminary of ministers of the gospel, and that the youth may be piously educated in good manners, and that the Christian faith may be propagated among the Western Indians to the glory of Almighty God."*

That the education of the youth referred to was not intended to cover popular education is proved by Sir Berkley's famous letter of 1671, wherein he says:—"I thank God there are no free schools nor printing and I hope we shall not have these for a hundred years; for learning has brought disobedience, and heresy and sects into the world, and printing has divulged them and libels against the best government. God keep us from both."

While the establishment of the college mentioned was deferred until 1692, a few grammar schools were founded shortly after the act of 1660 to prepare for this college. However, Sir Berkley's hope in regard to free schools for Virginia was fulfilled. She waited for her free public school system until 1801.

MIDDLE COLONIES.

Before William Penn secured possession of his American domain the Dutch and Swedes had established therein a few secondary institutions with curricula, ideals, and purposes in accordance with those of the times.

Early Schools. These schools soon coalesced with the English schools of the same type or were abandoned altogether.

Two educational traditions were brought by the Quakers from their fatherland—the renaissance tradition of the school

Quaker School Traditions. and the apprentice tradition of the workshop. Both were of ancient origin and both experienced a revival in the sixteenth century, the former, by the Renaissance, the latter by statutory provision.

In England these two traditions operated side by side without intermingling. The grammar schools encouraged the study of languages especially Latin and Greek; the apprenticeship sys-

*College of William and Mary, Bureau of Education.

tem, the acquisition of manual skill and knowledge of the craft.

In the colonies, Penn and his Quaker followers endeavored to unite in their courses the renaissance ideal of the one, with the utilitarian one of the other. This combination is now seen in our polytechnic schools. In 1682 the general assembly of Pennsylvania enacted the following law:—"That the laws of this Province from time to time, shall be published and printed, that every person may have the knowledge thereof; and they shall be one of the books taught in this Province and Territories thereof." *

Here is a strong indication that even scholastic instruction was to make for utilitarian purposes. It is stated that this course resulted in excellent instruction in civics, and in promoting good citizenship.

A grammar school was organized in Philadelphia in 1689, under Penn's guidance. This school is still in existence, and has always enjoyed a high reputation. Even *Founding of Grammar Schools.* now, it is a monument to its founder's memory.

The purpose of the school was clearly set forth by Penn in the preamble of the charter:—"Whereas, the prosperity and welfare of any people depend, in a great measure upon the good education of youth, and their early introduction in the principles of true religion and virtue, and qualify them to serve their country and themselves by inculcating love of reading, writing, languages, and of useful arts and sciences, suitable to their sex, age, and degree—which cannot be effected in any manner so well as by erecting Public Schools for the purpose aforesaid."

Purpose. Again: "To establish in Philadelphia a public school where all children and servants, male and female shall be educated, the rich at reasonable rates and the poor to be maintained at school for nothing—Poor children are to be freely maintained, taught, and educated in good literature until fit to be put out as apprentices, or capable to be masters or ushers in said school."

*Wickersham's History of Education in Penn.

Comparatively little is known concerning the actual courses of study in these schools. The extracts from the charters and assembly laws, however, give evidence of the *Course of Study*. desire to blend the two traditions mentioned.

This is confirmed by one of Penn's speeches still extant. While speaking of the work of the school, he states "that the pupils should be rather drawing, building and making tools and instruments, than getting some rules of propriety of speech by heart. Continuing in the same strain he says:—"All children within the Province of the age of twelve shall be taught a useful trade or skill to the end that none may be idle, but the poor may work to live, and the rich, if they become poor, may not want." *

Some idea of the courses of study and ideals in these schools can be obtained from the recommendation of Thomas Budd, a

Budd's Recommendation. Friend, and one of New Jersey's most prominent men. His recommendations are as follows:—"That schools be provided in all towns

and cities, and persons of known honesty and skill be yearly chosen by the Governor and General Assembly, to teach and instruct boys and girls in all the most useful arts and sciences, that they in their youthful capacity may be able to understand, as the learning to read and write true English and Latin, and other useful speechos and languages and fair writing, arithmetic, and bookkeeping; and the boys be taught and instructed in some mystery or trade as the making of mathematical instruments, joinery, twinery, the making of clocks and watches, weaving, shoe-making, or any other useful trade or mystery that the school is capable of teaching; and that the girls be taught and instructed in the spinning of flax and wool, the knitting of gloves and stockings, sewing and making of all sorts of useful needle work, and the making of straw-work, as hats, baskets, etc., or any other useful art or mystery that the school is capable of teaching. The scholars may be kept in the morning two hours at reading, writing, book-keeping, etc., and the other two

*Wickersham's History of Education in Penn.

hours at work in that art, mystery, or trade, that he or she most delighteth in: in the afternoon, two hours at work at their several employments." *

The intellectual education in this period was supplemented by religious and moral instruction. That the moral instruction and religious education were not neglected,

Purposes as Defined by Law. is shown by the following extract from Chapter XII, of the Assembly Laws: "And to the end that poor as well as rich may be instructed in good and commendable learning, which is to be preferred before wealth, be it enacted: That all persons in this Province and Territories thereof, having children and all the guardians and trustees having orphans, shall cause such to be instructed in reading and writing, so that they may be able to read the Scripture and write by the time they attain twelve years of age."

DISCUSSION OF CURRICULA.

The extracts from the charter of the colonial Pennsylvania grammar schools and from the other documents mentioned, prove conclusively that the society of Friends while still dominated to some extent by the ideal of the times, clearly discerned the necessity for the union of industrial and intellectual training. It appears to me, however, that too much emphasis was placed by them upon the utilitarian phase of the work. The commercial value of every subject is brought too much in the foreground. In every school there ought to be cultivated some desire for truth for its own sake. There ought to be placed the ideals of service to humanity and happiness of the individual. It ought to be understood that education enables the child to see and appreciate the beautiful, the good, and the true, as well as to make a living. I am thoroughly in sympathy with the movement to impart to pupils skill of hand, yet I am opposed to such a course where it is urged mainly for its commercial value. Such training should form a part of the harmonious develop-

*Wickersham's History of Education in Penn.

ment of all physical, mental, and moral faculties. Where too much emphasis is placed upon the utilitarian value of the branches, there is great danger that the intellectual development will be dwarfed. Whether this actually occurred is not known, but portions of Penn's speech point strongly that way. It is possible that such was the case, since in the attempt to correct one extreme, the pendulum of reform often swings too far to the opposite extreme.

The curricula in most grammar schools are not definitely known, but the school charters and the legislative enactments of

Curricula. that period show clearly that the function of these schools was the preparation of future col-

legians to pass the college entrance examination. The requirements for admission to college, therefore, probably were the main factors in determining the course of study. Changes in the college curricula, therefore, produced important changes in the secondary school programs. It is safe to assume that secondary school programs did not embrace much more in their course of study than was demanded by the colleges. This view is confirmed by the few portions of the curricula now extant, and is also corroborated by the reports of ministers of the gospel who at that period were ex officio inspectors of schools. An examination, therefore, of the old college curricula, requirement for admission to, and graduation from courses will enable us to form pretty definite ideas regarding the course of study in the grammar schools.

The requirements for admission to Harvard College were typical of all. In 1643 they demanded the power to read and

Entrance Requirements. translate at sight Tully and the other Roman authors, to speak true Latin in prose and verse extemporaneously and power to decline perfectly the paradigms of Greek nouns and verbs. No knowledge of history, geography, English, nor arithmetic, not even of the multiplication tables, was required.

The first three year course at Harvard included the equivalent of four years of Greek; one year of Hebrew, Chaldee, and

Syriac, two years each of logic, ethics, and politics; two of mathematics, consisting of elementary arithmetic and geometry; a little of physics, and bible study continued for three years. History was taught by lectures a few weeks in the winter, and botany received the same treatment during the summer. Latin at first was not studied since its mastery was one of the admission requirements, but students were compelled to use it in conversation instead of the vernacular. Modifications of the curricula were begun under President Leverett (1707-1724), and were continued under his successors. Latin ceased to be mandatory in conversation, and Virgil and Cicero found a place on the program. Chaldee and Syriac were dropped. The instruction in physics was extended, and the study of geography was introduced. Shortly before the revolution the first attempt was made to organize the instruction into departments. Four departments were founded, Greek, Latin, mathematics and mental philosophy, logic and mathematics, each under the exclusive control of one head.

CHANGES IN CURRICULA.

The following extract clearly sets forth the early graduation requirements: "Every scholar that on proof is found able to read the originals of the Old and New Testaments, translate them into the Latin Tongue, and to resolve them logically, withal being of godly life, and conversation, and at every public act have the approbation of the overseers and masters of the college is fit to be dignified with the first degree. Every scholar that giveth up in writing a system or synopsis of logic, natural and moral philosophy, arithmetic, geometry, and astronomy, and is ready to defend his thesis or position, withal skilled in the original as above said, and of godly life—is fit to be dignified with his second degree.*

At the foundation of William and Mary, Yale, and King's

*History of Mass. Colleges.

colleges the foregoing requirements also sufficed for the respective degrees. This similarity is accounted for *Other Colleges.* by the fact that the prime function of all these colleges was the preparation of young men for the ministry. In some of these colleges comparatively little is known concerning the evolution of curricula. Harvard's records in this respect, are the most complete. From partial records by others, and also from extraneous sources it is readily discerned that Harvard's curriculum was typical of all similar institutions in the new world.

The transition of the courses was very slow indeed until the beginning of the 19th century. Then in consequence of the *Humanistic Ideal Declines.* tendency of the times, and the operation of the forces enumerated on the preceding page, thorough mastery of the classics ceased to be the exclusive ideal. Room was then made for the study of history, geography, and the mother tongue. More time was devoted to natural sciences and mathematics. This new tendency is well expressed in the course of study for Columbia College, formulated in 1802.

COURSE OF STUDY OF COLUMBIA COLLEGE.

First Year.—Latin, English, Sheridan's Lectures on Elocution, Greek, Arithmetic, Written Exercises.

Second Year.—Geography, Conic Sections, Trigonometry, Mensuration, Selections from Classics, Algebra, Euclid, Surveying, Navigation, Logic, Rhetoric.

Third Year.—Astronomy, Higher Mathematics, Elements of Criticism, Natural and Moral Philosophy.

Fourth Year.—Selections from Ancient and Modern History, Stewart's Elements of the Philosophy of the Mind, Locke's Essay on Human Understanding, Principles of Criticism and Application, Reviews.

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EFFECT OF EVOLUTION OF COLLEGE CURRICULA UPON SECONDARY SCHOOLS.

The evolution of the curricula of the higher institutions soon worked downward and affected not only the secondary, but also through them, the elementary schools. This was natural. A modified course of study for a college usually demands a modified preparation in preparatory schools. These in turn, in order to meet the changed condition, must demand of students desiring admission, power in accordance with the new tendencies. Changes in the elementary schools must follow of necessity.

Harvard, in 1741, diminished the amount of classics required, and demanded in lieu thereof, a knowledge of arithmetic up to and through the rule of three. In 1816 a knowledge of ancient and modern geography was added. Strange to say, English was not an admission requirement to any course in Harvard until 1873. College entrance requirements and courses give us a fair idea of the upper limit of instruction in the average preparatory school. If the status of elementary instruction during this period were definitely known, the field for the secondary school would be fairly well defined. The reports show conclusively, that the first grammar school took the children at school age and taught them to read and write the English language. In 1668 the Roxbury Latin school excluded from its course these so-called A, B, C-darians, and thus gave the first formal recognition that pupils must have the power to read and write before being admitted to the grammar schools. Many of these secondary schools, however, contained mixed grades up to 1818.

The students upon being admitted to the grammar school were required to bring with them a psalter and a bible. These

formed the basis of the religious instruction.

Methods. Some ciphering was taught, but the instruction in this branch was meager. Any person of sufficient attainments to handle fractions well was considered an expert mathematician. Latin was the staple. Cheever's Latin Accidence, and Liley's Grammar, with its twenty-five

kinds of nouns, seven genders, fifteen pages of rules for gender and exceptions, and twenty-two solid pages of declension of nouns, were all committed to memory at the point of the ferule. When this was mastered readings in Corderius, Aesop, Eutropius, Caesar, Ovid, Virgil, and Cicero followed, accompanied by composition in Latin prose and poems. During the latter part of the course, the advanced Latin was supplemented by instruction based upon Greek grammar, Greek testament, and readings from Homer.

Some grammar schools acted exclusively as feeders for the colleges in the vicinity. In these, of course, the classic ideal was entirely predominant. The Boston public *Boston Public Latin Schools.* Latin school was one of these. Its course of study as administered for 1776 is here given:

First Year.—Cheever's Accidence, Nomenclatur, Ward's Latin Grammar or Eutropius, Corderius, Aesop, Latin and English.

Second Year.—Clark's Introduction, Selecti Veteri Testimenti, Dialogues, Making of Latin Prose, Ward's Latin Grammar or Eutropius, History or Castalios.

Third Year.—Cæsar, Ovid, Greek Grammar, Tully's Epistles and Offices, Virgil, Making Latin from King's Heathen Gods.

Fourth Year.—Virgil, Greek Testament, Homer, Latin Prose continued, Cicero's Oration, Horace, Gradus ad Parnassum.

This course of study was administered until 1814. A comparison with the courses of study of European schools of which *Modifications.* Sturm's at Strasburg, and those of Eaton are examples, show at once that it did not differ essentially from them. The Boston public Latin school represented the extreme of the classical ideal in secondary schools in America, as did Sturm's in Europe. The majority of contemporaneous schools, however, had their classic programs tempered with utilitarian studies. New York in 1702 enacted a law to start a Latin school in which "English, Latin, and Greek tongues or languages and also the arts

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of writing and arithmetic were to be taught." Schools based upon the same plan followed speedily in other colonies.

There is no record concerning the study of algebra, geometry, and natural sciences in secondary schools prior to the Revolution.

Mathematics in Curricula. This is not surprising. Algebra during that period was unknown even in the Harvard

curricula and only two periods per week for two years were given to mathematics, consisting of arithmetic and elementary Euclidian geometry.

Two potent factors in the evolution of grammar school courses of study were the religious ideal and fitting for college. A

Transition in Ideals. large amount of time was devoted to the classics. These evidently were thoroughly mastered.

These schools accomplished their ends frequently by means which would not pass muster in modern education. Their programs are entirely inadequate for an industrial civilization. They did not utilize important avenues leading to complete happiness. While they served their purpose fairly well in colonial times, in our own day such course would lead inevitably to such one-sidedness of development that "complete living" for one so trained would be out of question. "In our age with its complexity of human relations, the languages of Greece and Rome can never again be considered as they once were—almost the sole requisite of a liberal education."*

The early settlers versed in the lore of England's grammar school wisely made provision for the establishment of these institutions in this country. For a time they

Decline of Grammar Schools. flourished, but in the century preceding the Revolutionary War not only the elementary school retrograded, but the grammar school itself fell into great disfavor. The laws and regulations making schools of this grade mandatory were evaded if possible. Other places paid the fine exacted by the law rather than maintain the school. This was due to new social conditions arising in consequence

*Dr. Chase, *Liberal Education*.

of the prolonged wars through which the colonies were just then passing. At first there was a close connection in most of the colonies between the ecclesiastical and political function. As time advanced these sectarian differences were ignored. The decay of the scholastic curriculum due to the factors mentioned in the preceding paragraph began in our colleges about 1789 and this decay contributed materially to the rapid decline of the grammar school. In many places the decline of the grammar school was due to the struggle for existence. The temporal necessities demanded by backwoods life in a rigorous climate absorbed all the available energy. The people were too poor to provide books and school-houses for the children, and to raise the money for the teacher's wages. The roads were poor, newspapers scarce and the educational ideal had declined in consequence of the Indian and other warfare waged during this period.

In Massachusetts and Connecticut legislative measures were instrumental in hastening the decline of the grammar school. Massachusetts in 1789 made provision for the district system. This was fatal to the extension of the broad and public generous spirit that formerly prevailed. Petty local jealousies greatly hastened the waning of the educational town spirit. In addition to this it removed the obligation from communities having only one hundred families to maintain school with instruction beyond the elements. Although this obligation was not removed from communities having two hundred families, it still freed one hundred and twenty towns from the necessity of providing for grammar school instruction and left only one hundred and ten towns with that duty still incumbent upon them. In Connecticut, in 1795, liberal land grants were made from the domains of the Western Reserve for aiding in public school education. This instead of aiding the schools rather hindered their development by producing a spirit of unwillingness on the part of the people to tax themselves willingly and cheerfully for the support of the schools. In addition to the foregoing, there was an exodus of the young people from the towns to the larger cities where they hoped

to make their fortunes. This left many grammar schools without a suitable supply of students.

ACADEMIES.

The academies arose in England in consequence of the fact that the dissenters from the established religion were excluded* from both grammar schools and universities. Milton suggested the establishment of this class of school. In his "Tractate" a complete and generous education is outlined as "that which fits a man to perform justly, skillfully, and magnanimously, all the offices, both private and public, of peace and war," and recommended that less time be bestowed on grammar, and sophistry; and that an academy be established which should be both school and university.

The decline of the grammar schools has been discussed in a preceding paragraph. Possibly the schools themselves were to blame in part for the antagonistic feeling mentioned because they did not adapt their courses to changed conditions. The poorer class of people opposed the grammar school on account of the poverty incident to the wars.† The rich on their part looked down upon them as pauper schools. These changes were instrumental in introducing the academy.

Europe witnessed a rapid advance in science, mathematics, natural philosophy and astronomy in the middle part of the eighteenth century. As early as 1715 Newton's works in mathematics began to be widely read and created a greater interest in literature of a similar nature. This interest extended to America and was materially enhanced by the more extensive use of the printing press after the Revolutionary war. Sustenance being also more easily procured, general and liberal education soon became popular. The spirit of the grammar school, however, had died out and the academy was organized to take its place. Some were organized in Massachusetts as early as 1763. At first they were mostly private enterprises

*Rev. C. Hammond, Barnard's Journal of Education, vol. XVI, p. 403.

†Martin, Evolution of Massachusetts Public School, 87, 117-118.

or were organized by select communities. Later on they were incorporated, and many became well endowed. Some received state aid, as those in New York and Massachusetts, by complying with certain regulations respecting courses of study. The different religious denominations called many into existence. The Quakers established one in West Town in 1799 with a course of study providing for instruction in "reading, arithmetic, navigation, surveying, and such other learning as is usually taught, and parents may direct, and likewise in the Latin, Greek, and French languages." The Moravians established one at Bethlehem and one at Nazareth, Pennsylvania, with courses of study, equipments, and teachers which placed them among the best schools in America. Other denominations pursued a similar course in other localities.*

While nearly all the academies were designed to prepare the students for college, yet most of them had extensive programs

Function of Academies. providing a somewhat liberal training for both sexes. In this they differed materially from

the grammar school, from whose membership girls were entirely excluded. The classical languages were taught, but systematic instruction was also given in English, French, writing, geography, rhetoric, arithmetic, practical geometry, logic and philosophy. These extensive courses made the institutions very popular for a time. Their founders did everything in their power to further their popularity. They were in the hope that public sentiment might be stimulated in favor of secondary training. By giving the youth of the country opportunities for liberal education they hoped to create a desire for it. Hence they aimed at furnishing at least a somewhat liberal education for those students who did not look forward toward the college training. The popularity of some of these schools is also attested by their large enrollment. In 1786 "Leicester academy" (founded in 1734) "had received from six to eight

*Winterbotham Academies.

thousand pupils of which perhaps four hundred had been fitted for college. Westfield has sent out over eight thousand persons; Lawrence, at Groton, nearly eight thousand; New Salem not less than seven thousand. In eighty or ninety years—three generations—these four schools alone had brought into a scholarly atmosphere, had kept under the instruction of scholarly men and women, for a longer or shorter time, not less than thirty thousand young men and women—ten thousand to a generation; and these are only four of more than a hundred such schools.”*

At the beginning of the nineteenth century they were found in nearly every state. Massachusetts and New York had nineteen each. The programs of these institutions were a decided improvement upon those in the grammar schools and greatly simplified the question of appropriate courses of study for high schools when these appeared. The academies aroused a strong and widespread desire for education. They were instrumental in broadening the intellectual horizon of families and communities, and they re-enforced the protest against the narrow curricula of the American colleges. In many places they served as training schools for teachers, and in some states this service of the academy received recognition at the hands of the legislature in the form of state aid.

Public sentiment in the course of time became molded in favor of the establishment of secondary schools under the direct

Decay of Academies. control of the people, free from church influences or from that of private corporations. In places the reaction against the classics influenced not only the usefulness of the ancient Latin school, but also the academies. Since most of the institutions of the latter class were largely under the control of private corporations, no public institution existed where the children of the commercial and industrial classes could receive an advanced English education. The rise of the sentiment in favor

*Martin, Evolution of Mass. School System, pp. 124-125,

of secondary non-classical schools under state control called the modern high school into existence, and with this rise the academies decayed. Some remain as feeders of denominational colleges, and a few others well endowed are still in existence.

CHAPTER IV.

MODERN HIGH SCHOOL.

The period of decentralization with the evolution of the district school and the academy mentioned in the preceding paragraph was followed during the evolution of *Establishment*. our national feeling by a widespread sentiment for more strongly centralized schools under the exclusive control of the state government. The steadily advancing separation between church and state and the influence of the French Revolution in making education a part of the popular government enhanced this sentiment. Furthermore, the tide of emigration had now fully set in toward the towns. The New England states were rapidly transformed from agricultural into manufacturing states. The invention of labor-saving machinery liberated energy and multiplied products. The new supplies created new demands and things formerly considered luxuries became necessities now. Steamboats and railroads greatly extended intercourse and exchange and gave to the larger centers of industries a somewhat cosmopolitan character. With the incorporation of many of the manufacturing towns came the restoration of the town school system. The need for a new educational institution where the advanced English education could be obtained soon became apparent, since the academies favored the rich and burdened the ambitious poor. These forces crystallized into the formation of the modern high school. The Boston Public Latin School, though not a public high school in the modern sense of the term, is the oldest of the existing free schools and best represents the universal conception of secondary schools at that time. Its courses, thoroughly

classical, are given on another page. To Boston also belongs the honor of establishing the first high school on this continent. It was organized especially for young people who did not propose to go to college. Here we find the origin of the problem leading to the differentiation of college and business courses, now solved in our modern high schools by parallel courses of study. A great gap was left between this new high school and the colleges. This gap has recently disappeared more or less completely in the different sections of the United States by the introduction of studies regarded distinctly as preparatory.

The first course of study for the modern high *Course of Study.* school covered a period of three years. Its provisions and the names of the text books used are as follows:

FIRST YEAR.

1. Intellectual and written Arithmetic, Colburn and La Croix.
2. Ancient and Modern Geography by Worcester.
3. General History by Tyther; U. S. History by Goodrich.
4. Elements of Arts and Sciences by Blair.
5. Reading, Grammar, Declamation.
6. Book-keeping, Double and Single Entry.
7. Sacred Geography.

SECOND YEAR.

8. Reviews of studies of preceding year.
9. Algebra, by Colburn.
10. Rhetoric and Composition by Blair's Lectures.
11. Geometry, by Legruder.
12. Natural Philosophy.
13. Natural Theology, by Paley.

THIRD YEAR.

14. Reviews.
15. Moral Philosophy, Paley.
16. Forensics.
17. Criticisms on English Authors.

This course of study was a precursor of our commercial or business courses, coupled with a vestige of the old religious ideal. Foreign languages and civics are omitted. *Discussion of Curriculum.* Commerce and other industries had not developed to such proportions at that time, as to demand instruction in foreign languages, and civics was in its infancy. The program doubtless shows a fair comprehension on the part of its framers as to the needs of the time, and was instrumental in making the modern high school popular.

A high school for boys and girls was organized in New York in 1825. The promoters thereof evidently had studied the Boston experiment, and had profited by its experience. *New York High School.* A course of study including reviews in the lower branches, and instruction in pure and applied mathematics, trigonometry, and surveying, natural philosophy, Latin, Greek, French, and gymnastics was formulated and administered.

The most serious omissions were music, history, and civics, yet on the whole it is an improvement upon Boston's first course.

Discussion of Course. By making arrangements for electives, the ideal of the high school was enlarged, and an opportunity was accorded students for preparation for higher education, as well as for business.

RECOGNITION OF HIGH SCHOOL AS A PART OF THE PUBLIC SCHOOL SYSTEM.

Massachusetts, that pioneer of education, here took the lead again. In 1826 the modern high school was formally recognized by its legislature as a part of the public school system.* Under this law, every town containing five hundred house-holds was required, in addition to the prescribed course for the elementary schools, to offer instruction in general history, book-keeping, geometry, surveying, natural philosophy, chemistry, botany, civics, polity of Massachusetts and of the United States, and Latin. Every town of four thousand inhabitants was required to have high school teachers qualified for giving instruction in Greek, French, astronomy, geography, rhetoric, logic, intellectual and moral science, and political economy. Since 1894† every town of twenty thousand inhabitants or more must offer, in addition to the foregoing branches, a course in manual training, consisting of free hand and mechanical drawing, carpentry, wood-turning, pattern making, moulding, forging, chipping, filing, and machine shop practice. The details and actual working of the school courses are nominally left to local boards but are virtually determined by the college entrance requirements. The foregoing holds for all courses except the general course for pupils who do not propose to enter college.

The formal recognition of the high schools as a portion of the public school system in Massachusetts in 1826 paved the way for rapid advance of this movement. *Growth of High School Sentiment.* Worcester established one in 1827; Salem in 1828; Bridgeport, Conn., and Genesee, N. Y., in 1827; Providence, R. I., in 1828; Lowell, in 1831; Central High School, Philadelphia, in 1837; Cincinnati in 1847; St. Louis in 1853; Chicago in 1856; Detroit in 1858. About this time they were recognized as part of the public

*Acts of 1826.

†Acts of 1894.

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school system in all states. In the West, especially, their growth has been phenomenal. In many states the zeal in the establishment of these schools exceeded the express statutory provision under which these schools operated. Some prejudice and hostility ensued in consequence, especially on the part of those who firmly believed that the academy was the final solution of the secondary school problem, and that the state had no authority to provide for secondary instruction at public expense.

This legal question was finally settled by a unanimous decision of the supreme court of Michigan* in 1874 in the famous "Kalamazoo case," which was brought to restrain the collection of school taxes voted for the support of the high school. The opinion in this case was written by Justice Thomas M. Cooley, who is considered an authority among American constitutional lawyers. He summed up the situation in the following words:

"Neither in our state policy, in our constitution, nor in our laws do we find the primary school districts restricted in the branches of knowledge which their officers may cause to be taught, or the grade of instruction that may be given, if their voters consent, in regular form, to bear the expense and raise the taxes for the purpose."

This opinion was reinforced by a decision of the supreme court of Missouri† in 1883, which held that the term "common school" denotes the fact that they are open and public to all rather than to indicate the grade of the school, or the subjects that may be taught therein. These decisions settled the question not only within the states of Michigan and Missouri but throughout the entire extent of our land. Since then the high school has become dear to the hearts of the American people everywhere, and they cheerfully tax themselves in its support.

In the European secondary schools, from their earliest incipi-

*Michigan Report, 30; 69-86.

†Missouri Report, 77; 485-489.

iency down to the present date, at no time was instruction free.

Secondary Education free in United States Alone. As late as 1901 the Court of the Queen's Bench† in England expressly held in the famous case of the Queen vs. Cockerton, that no school board has power to expend any money raised by local taxation for other purposes than that of elementary education.

The Jesuits alone set the example of making secondary instruction free to those who might attend. The attendance in their schools, however, was limited to boys and only those who were brilliant and gave promise of immediate success were allowed to continue to the end of the course.

In America alone the secondary instruction is free for all. These schools are maintained in the interests of the whole people. This is a wise policy, since an instructed and enlightened population is essential to the maintenance and effective operation of a government based upon democratic principles.

Recent Progress. The progress of these schools of late has been remarkable. The Commissioner of Education reports 40 public high schools for 1860; 170 for 1870; 800 for 1880, and 2,526 for 1891. The report for 1892-93 shows 2,812 public high schools with an enrollment of 232,951 students and 9,489 teachers. In 1899-1900 the report shows 6,005 public high schools, with an enrollment of 519,251 students and 20,372 teachers. This makes an average of 86.5 pupils, and 3.4 teachers to each school. The same report shows an enrollment of 790,241 students in all the secondary schools of the United States, both private and public. This is a very good showing, indeed, and yet it gives only 17 students in secondary schools to each 1,000 inhabitants in the District of Columbia and Nebraska; 16½ in Maine; 16 in Utah and Iowa; with the number then ranging to 4 in New Mexico, Louisiana, and Alabama. Wisconsin has 11⅓ secondary students of all grades to each 1,000 inhabitants.

†Eng. Law Reports, 1901, 322 and 726.

WISCONSIN FREE HIGH SCHOOLS.

The evolution of our free high school system forms a most interesting chapter in Wisconsin's history of education. From 1818 to 1846 our state formed part of Michigan territory, and when separated by an act of congress in 1836, it was ordained that the existing laws of that territory should be extended to the new territory so far as compatible with the provisions of the act, subject to the alteration or appeal by the new government erected. The Michigan laws for the operation of schools, though modified in some of their provisions almost every year, continued in force until the adoption of the state constitution in 1848. In that constitution we find the broad foundation, not only of our elementary but also of our secondary and higher educational school system. By it the school fund was created and in it was guaranteed the free education of all children between four and twenty years of age.

THE EARLY SECONDARY SCHOOLS.

In the early years under territorial government the schools were unorganized and elementary in character. Some excellent work was done in select schools as early as 1840, in Milwaukee and Kenosha, yet at the time when Wisconsin was accepted into the sisterhood of states only Whitewater, Waukesha, and Geneva had followed in establishing schools of this kind. The secondary schools evolved under state government. Their history repeats the history of these institutions in the eastern states. One of its prototypes, however, the classic grammar school, found no foothold within the confines of our state. The evolution of the secondary school system had passed beyond this stage when Wisconsin was admitted to statehood.

The first attempt to solve the problem of secondary education was by the so-called academy. A number of these institutions were established in the cities, and some *The Academy in Wisconsin.* attained a fair degree of popularity and flourishing condition. The oldest and best known of Wisconsin academies was located at Platteville, and was in-

corporated under the territorial laws in 1839. It soon attained renown. In 1846 Professor J. L. Pickard assumed the leadership and under his vigorous management the membership of the school increased in thirteen years from 5 to 111. This academy proved eminently successful and popular. In 1866 the grounds and buildings of this academy were transferred to the state board of normal school regents, who instituted there the first normal school in Wisconsin. This academy offered instruction in the ordinary branches taught at that time and in addition Latin, geometry, algebra, rhetoric, geology, and music. The academies, Platteville included, were private schools supported by contributions of greater or less extent made by the parents of the children who attended.

Some of the larger institutions received state aid* for maintaining a normal department for the preparation of teachers in accordance with statutory provisions. The same provisions applied to other institutions of the same rank bearing the name of collegiate institutes.

The civil war attracted many of the men, both teachers and students, from these schools, and in consequence the academies declined very materially. In 1864 the normal departments maintained by these institutions numbered seven and furnished fewer than 70 students for examination. The state board of normal school regents became dissatisfied and urged the establishment of separate normal schools. The legislature in the following year acted upon the recommendation and with the advent of the state normal school and spread of the high schools the academy declined still more. In 1865† the number of these institutions reporting to the state superintendent was 14. The membership of the faculties was 81; the enrollment, 1,950; and the number of graduates, 78. In 1866 only 9 academies reported with a total enrollment of 1,495. In the report of the state superin-

*Annual Report of State Superintendent for 1860.

†See annual Reports of State Superintendent for years mentioned.

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tendent for 1870 only four academies are reported, located at Evansville, Milwaukee, Jefferson, and Patch Grove. The tendency toward the extinction of the academy had been marked for years. The rapid evolution of the high schools and of the normal schools absorbed nearly all the students engaged in securing a secondary education.

The growth of the graded schools was contemporaneous with the growth of the select school and the academy. In 1854

Union High Schools. Kenosha, Manitowoc, Fond du Lac, Madison, and Racine operated well graded schools.

Some of these gave high school instruction.

The first Wisconsin high school class, ten in number, graduated in Racine in 1857. In 1860 there were about 50 graded schools in the state. The state superintendent in 1852 recommended the formation of county high schools, and in 1858 the state legislature made provisions for union high schools. Very few high schools were organized under this law on account of the disinclination of the districts to give up their district organization. The graded schools, however, continued to prosper. In 1867 the number of schools maintaining two or more departments was 357. The development of district high schools kept pace with the development of the graded schools. Milwaukee opened its first high school in 1868 with an enrollment of 128 pupils. The courses of study for these schools were formulated by the local boards. The following course, in operation in 1868 in the Berlin high school, is typical of the best high school programs in the state at that time:

FIRST YEAR.

First Term.—Higher arithmetic, physiology and hygiene, analysis of English sentence, and orthography.

Second Term.—Higher arithmetic, physiology and hygiene, analysis of English sentence, and orthography.

Third Term.—Higher arithmetic, elementary algebra, analysis of English sentence, and agricultural chemistry.

SECOND YEAR.

First Term.—Elementary algebra, universal history, physical geography, and English composition.

Second Term.—Algebra, universal history, physical geography, and English composition.

Third Term.—Geometry, rhetoric, natural history, and English composition.

THIRD YEAR.

First Term.—Geometry, rhetoric, natural history, and Latin.

Second Term.—Geometry, natural philosophy, geology, and Latin.

Third Term.—Natural philosophy, chemistry, geology, and Latin.

FOURTH YEAR.

First Term.—Chemistry, intellectual philosophy, astronomy, and Latin.

Second Term.—English literature, intellectual philosophy, astronomy, and Latin.

Third Term.—Moral philosophy, logic, botany, and Latin.

Composition and declamation throughout the entire course, and reading and spelling every week.

These schools continued to improve in number and in condition. In 1875 there were 27 cities with strong schools, most of which supported high schools. Of the 394 graded schools outside of cities, 210 had three or more departments.

ESTABLISHMENT OF THE FREE HIGH SCHOOL SYSTEM.

In 1875, after considerable agitation by the state superintendent, state teachers' association and others interested in the educational welfare of the state, the legislature passed a law encouraging the voluntary establishment of free high schools and appropriated \$25,000 annually toward aiding in their support. State Superintendent Edward Searing during that year

prepared three courses of study. Two of these, making provision for four years' instruction, were designed for the large cities. The third, a three years' course, was designed to cover the needs of the smaller places. During that year eighteen free high schools were established. In 1876 twenty-four high schools were added to this list.

These schools attracted wide attention through their systematic and comparatively uniform courses of study, organization, higher average grade of teachers and increased attendance of non-resident pupils. The great number of students preparing for the university and the new and large buildings expressly erected for the purpose of more advanced instruction, added to their popularity. Twenty schools participated in the first apportionment of high school aid made at the close of the school year in 1875-1876. These twenty schools enrolled during the year, 1,482 pupils and employed thirty-seven teachers. The amount received for tuition was \$1,337.14. The sum of \$17,927.43 was actually expended for instruction, and the state aid to these schools amounted to \$7,466.50.

The year 1877 saw the largest accession—thirty-two high schools to the free high school list. The law met with continued favor. Ninety-one free high schools were entitled to state aid for the school year 1879-80. These ninety-one schools had an enrollment of 6,730 pupils and employed 207 teachers. The sum of \$9,862.05 was received for tuition. The sum of \$116,683.53 was expended for instruction and the total apportionment of \$25,000 was used up in aid of these schools, none of them receiving the maximum allowed by law.

The annual appropriation of \$25,000 in 1885 was entirely absorbed by high schools connected with the graded system of cities and villages. The legislature, therefore, appropriated another \$25,000 annually expressly for free high schools in towns having no graded schools. This plan, though perfect in theory, did not prove successful in practice. The independent district system prevented the formation of township high schools. The

Increased Appropriation.

following legislature, therefore, provided that township high schools are to receive as special state aid from this fund one-half of the sum actually expended by them for instruction, the balance of the \$25,000 to be merged with the other fund. The other schools share pro rata and none may receive more than \$500 per annum while the township high schools receive one-half of the amount actually expended in instruction. Yet in spite of this inducement, Wisconsin has now only nine high schools of this class. Ten years of rapid development of local high schools followed. The number increased to such an extent that the appropriation for each was very small indeed, and so the legislature in 1898 doubled the appropriation making \$100,000 available for this purpose. Under this beneficent act the growth of the high school has gone forward vigorously and the schools have kept pace with the material prosperity of the state.

On July 1st, 1900, there were 219 free high schools in Wisconsin. Of this number 163 had four year courses and 56 three year courses. Now we have 226 schools on the *Some Statistics.* free high school list, 180 of which have four year courses, and 46 of which have three year courses. Since June 30th, 1902, 11 high schools have changed from three year to four year courses.

The 226 free high schools of the state last year employed 729 teachers and had an enrollment of 16,126 students. The salaries of the principals and assistants amounted to \$466,281.33; the tuition pupils numbered 4,142; the amount paid for tuition was \$42,813.22. The thirteen independent high schools of the state in 1901-1902 employed 154 teachers and had an enrollment of 4,121 students.

The increase in tuition students is due in a large measure to the operation of chapter 188, laws of 1901, which provides

Free Tuition Provided. for the payment of tuition at public expense for high school students coming from districts that do not support a free high school. The operation of this law and its benefits are not fully understood. Present indications show that it will be instrumental in increasing the high school enrollment very materially in the future.

The establishment of state graded schools by legislative enactment will prove another feature in enhancing the growth and popularity of the high school. In these state graded schools the course of study formulated by the state superintendent and administered by the schools is a most excellent preparation for high school work. Many of the state graded schools of the first class have secured permission to give instruction in some of the high school subjects. This permission has always been granted where the teaching force and the facilities were ample and where there was a sufficient number of pupils advanced enough to take such instruction with profit to themselves and credit to the community. This course is taken in most communities as a stepping stone to the establishment of a high school having a three years' course, and under it four new high schools have been established within the last four months.

This exceptional growth of the high school augurs well for the success and prosperity of the state. The large increase in the number of these institutions enables a large proportion of the children in our commonwealth to secure a good secondary education and yet remain at home under the influence of their parents. Much of the future success of the child depends upon the formation of correct habits. The years devoted to high school work are the most impressionable years of life and it is at this time that the youth is most susceptible to bad influences. It is not surprising, therefore, that the people of our commonwealth prize that institution very highly which enables them to educate their children within reach of home influences. The physical well-being of the children of the Badger state as well as their moral welfare plead for more of these home high schools.

INDUSTRIAL TRAINING.

The literary courses show the existence of a wide difference of opinion as to what subjects shall be given a place on the program and what amount of time shall be allotted to each. Of late the problems of secondary education have become more complicated than ever, owing to the rapid extension of the sci-

ences and industries. High school after high school adopts manual or commercial training courses or both into the curriculum. It will therefore be wise to give a brief resumé of the development and present status of industrial education for the purpose of bringing the entire high school problem squarely before us.

MANUAL TRAINING IN EUROPE.

Manual training was officially recognized in Norway as early as 1860 as a branch of the school curriculum. But only recently has a system of manual training exercises been made a part of the general primary education. In 1891 it was made compulsory in all training colleges and town schools.

Sweden has given the world the system of wood work known as Sloyd. It is an intrinsic part of the elementary school curriculum. The famous school for training teachers for Sloyd work was established in 1875 at Nass. Under the direction of Principal Otto Solomon it has achieved great renown and has been a very important agency in making this branch of learning popular. Instruction in Sloyd was given in 2,000 schools and the 7 training colleges in 1896.

Instruction in manual training was made compulsory in Holland in 1891. In Belgium instruction in these subjects is offered. Under statutory authority since 1884 the local boards may introduce manual training as a school subject but it is not made obligatory in any institution.

We are indebted to Russia for the best method of teaching manual training in the public school system. Its exhibit at the Centennial Exposition in Philadelphia in 1876 was a most remarkable one and thoroughly convinced many of the leading educators throughout the world of the feasibility of adding this subject to the public school curriculum. Russia limited the instruction to students having attained to an age of 18 years or

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more. Finland, one of the provinces of Russia, however, was the first place to put manual training into the curriculum of the primary school.

Nineteen of the twenty-five Swiss cantons *Switzerland*. have made provision for instruction in wood work and other manual training in the schools.

France in 1882 passed a law making instruction in manual training involving the use of wood work and tools obligatory in the elementary schools. In Paris only, however, has this movement borne satisfactory fruit since no provision was made in other places for the adequate training of teachers in this subject.

In England instruction in wood work was recognized as a subject in the upper, intermediate and grammar courses, as early as 1890. Instruction is given in paper *England.* and card-board work, clay-modeling, sewing, cooking, and laundering.

A strong tendency exists in Germany to make instruction in wood work and other manual training an intrinsic part of the primary education. This sentiment is fostered from pedagogical standpoints rather than from the industrial and is steadily gaining ground. Several of the subdivisions, Prussia and Saxony included, now grant financial aid for this branch of school work. Instruction in manual training was given in 1899 in 605 towns having 1,574 workshops. Of this number 836 are institutions conducted strictly on a pedagogical basis. Four hundred thirty-five schools confined their attention to wood carving, 527 to working in card board and 357 to bench work in wood. During that year Germany had more than 2,000 teachers qualified to teach manual training in the different schools.

MANUAL TRAINING IN AMERICA.

Industrial training is not a strictly new idea on American soil. It was shown on a foregoing page that Pennsylvania when starting its colonial life endeavored to unite the industrial training of the apprenticeship with the intellectual training

of the school. Massachusetts also as early as 1642 provided, that "all parents and masters do bring up their children and apprentices in lawful calling, labor or employment, or some other trade profitable for themselves and the commonwealth."

Benjamin Franklin also in 1749 suggested work along these lines in his "Proposed hints for the academy," setting forth therein as the most useful studies, arithmetic, writing, drawing, and mechanics. This bore fruit later on in securing the organization of technical schools. Nothing definite, however, appears to have come from this movement so far as the public school system was concerned. The exhibit at the Philadelphia Exposition, in 1876, gave a tremendous impulse to the manual training sentiment in this country. Under it the manual training school at St. Louis was organized in 1879. Baltimore organized one in 1883; Chicago, Toledo, and New York in 1884; Philadelphia and Denver in 1885; Cleveland in 1886, and the famous Stout Manual Training School was organized in its present scope, in Menomonie, Wis., in 1890, although it had been in existence as an educational experiment for some years previous.

This movement of introducing manual training as a corrective to excessive book work seems to be gaining ground very steadily. According to the report of the Commissioners of Education 144 schools gave instruction in industrial training in 1899-1900 to 41,336 pupils in the United States.

In 1895 the Wisconsin legislature made provision for special state aid to manual training departments in connection with high schools. It provided for special state aid of \$250 to any free high school that had maintained a department for giving instruction in manual training for at least six months in the year and followed the course of study prescribed by the state superintendent for such schools. The number of schools that might receive special state aid was limited to 10, but this number was increased by the legislature of 1899 to 20. State Superintendent J. Q. Emery prescribed the following elastic course:

Freehand and mechanical drawing.

Instruction and exercises in wood and iron work.

Instruction and exercises in sewing, and

Instruction and exercises in cooking.

Under the influence of this law departments of manual training and domestic economy were organized in Eau Claire, Oshkosh, Janesville, Fond du Lac, Mayville, Florence, Waupaca, and Appleton. Menomonie and Milwaukee had manual training departments in operation, but made application for a place on the list of schools entitled to state aid. The rapidly growing interest in the state in the matter of manual training led the legislature of 1899 to increase the number of schools that might share in the special state aid, but owing to the extreme difficulty the boards experienced in securing competent teachers, some schools were obliged to discontinue work in these subjects. They will resume work as soon as qualified teachers are available. Marinette, Bayfield, La Crosse, Manitowoc, Beloit, and Racine are now investigating the subject and it is probable that departments of manual training and domestic economy will be established in these cities in the near future.

The board of normal school regents of Wisconsin at its last annual meeting, June 30, 1902, made provision for the estab-

Training of Teachers. lishment of departments of manual training in the Oshkosh normal school for the purpose of

training teachers in this department and a domestic science department in the Stevens Point normal school for the purpose of training teachers for handling this subject in the public schools of the state. An available supply of teachers trained for giving instruction in the subject will obviate the greatest difficulty to the rapid extension of this phase of education in this state.

This phase of education was violently opposed at first by many educators. At present, however, the sentiment is practically unanimous in its favor. The following extract from the annual report for 1889, of the Honorable Henry Sabin, state superintendent of Iowa, is a fair example of the estimate in which manual training is now held:

"Industrial education does not, as I understand it, mean a lessening of intellectual vigour. There is no design of lowering in any degree the standard of scholarship.

Educational Value. It is in no way associated with learning a trade or serving an apprenticeship.

Industrial education does not of necessity fit the child for the industrial pursuits of after life, although no harm could ensue if it did. Perhaps I may qualify that remark. Industrial education should fit the child, not for any particular industrial work, but for any work to which, in the emergencies of life, he may be forced to turn his attention.

"It should expand and increase his resources, and give him confidence in himself. It should arouse and strengthen the manly instincts and powers of the man.

"We are told that knowledge is power; but knowledge is not always power. There are men who are forever learning, yet never really know anything. Men who count themselves wise, who dig deep into the mysteries of things, and yet the world sets them upon the dunce-block, puts the fool's cap upon their heads, and makes fun of them. The intrinsic value of knowledge is always on the productive side. Change the adage so that it may read *Applied knowledge is power*, and we have at once the key to our present civilization and progress. This is just what we hope may be accomplished by industrial education. Its advantages do not contemplate the narrow purpose of teaching the child a trade, but the broader purpose of enabling him to act as well as speak; to do as well as think; not with the idea of giving him something to do, but to give him the idea of doing something. So that when he leaves school, whether he becomes a blacksmith's apprentice, or a clerk behind the counter, or enters an office, he may be able to bend all the energies of head, heart, and hand to making himself perfect in his calling.

"Industrial education, as far as it seeks to give skill to hand and eye, concerns itself as much with the probabilities as with the possibilities of life. It fits the child to work at the forge and the bench, to plough and reap and weave, just as much as it does to sit in the editor's chair, or to fill a position of emolu-

ment or power. It does not seek to impress upon the child the dignity of labour, but the dignity of manhood. A sound heart which throbs for God and humanity is a good thing; a sound heart and a clear, strong head is better; but a sound heart, a clear head, and a skilled hand give us the nearest approach to a perfect man."

While there is practically no disagreement as to the value of manual training a wide divergence in subjects exists in the courses in operation in the different states and *Diversity in Scope*. even in the schools of the same state. In some courses manual training occupies more time than is allotted to the literary subjects, while in other schools only a small fraction of the time is given to it. This diversity, however, is not surprising, since the industrial training in the high school is but a relatively new feature and the ideals have not been thoroughly worked out.

Scarcely any difference of opinion exists as to the time when manual training may be profitably begun. Almost all advocates of the system claim that manual training should begin long before the pupil enters the high school, in order that the benefits incident to instruction in this subject may be accorded to a larger number. In 1900, in round numbers, 15,466,000 pupils were enrolled in the grades and 790,000 in the high schools. Even when both elementary and high schools are reduced to the same basis, so far as number of years in the course is concerned, the ratio of enrollment in the elementary to enrollment in high schools is still about 10 to 1. This shows the great increase in high school attendance notwithstanding, that while 21 per cent. of the population is enrolled in the elementary school, only 1.1 per cent. is enrolled in the secondary school. Those who finish their schooling before entering the high school department have no opportunities then for securing the results of this training. In accordance with this view a system of manual training has therefore been introduced in a goodly number of city systems. In Wisconsin the scheme is being tried now at Racine, and La

*Should Begin in
Grades.*

Crosse and Beloit are endeavoring to organize a system of instruction in the grades in this subject.

Los Angeles probably excels all other cities in the United States in the excellency of its manual training system for the grades.

COMMERCIAL EDUCATION.

In spite of the fact that commercial instruction had its beginning in the United States in business or commercial colleges more than sixty years ago, it is only recently that this phase of education has attracted widespread attention. Book-keeping, commercial arithmetic and other subjects distinctly preparatory for a commercial career, are now found in many of the general courses. The commercial spirit is rapidly advancing and is now recognized in the large cities by a special course in the high school fitting for this particular line of work.

The business colleges at first limited their instruction to book-keeping, commercial arithmetic, and business forms. Stenography and typewriting were added later on.

Business Schools. In 1870, twenty-six business colleges reported to the Commissioner of Education. These twenty-six institutions had an attendance of 5,824 students. In 1880 the number of schools reported was 162 and the number of students 27,146. The rapid extension of commercial interests, and consequent demand for trained stenographers and typewriters produced a very marked increase in the number of schools and in the attendance. In 1890, 263 schools reported with an attendance of 78,920.

Within the last fifteen years a strong and constantly growing demand has arisen for commercial courses in connection with the high school. Preceding this, some **Business Courses in High Schools.** instruction was offered in the high schools in bookkeeping, commercial arithmetic and business forms. These formed, as mentioned in the preceding paragraph, an intrinsic part of one or more of the courses offered in the different high schools. Such meager concessions at present, however, do not satisfy the constantly growing demand for in-

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struction in commercial subjects: In consequence of this demand a large number of high schools have organized business or commercial courses as a preparation for that career. The following summary from the Commissioner's report for 1900 sets forth the status of this phase of education in the United States:

Class of Institution.	Number of schools.	Males en- rolled in business courses.	Fe- males.	Total.
Universities and colleges	183	6,212	1,741	7,953
Public and private normal schools	75	4,564	2,093	6,657
Private high schools and academies.....	869	9,411	5,738	15,649
Public high schools	2,893	33,133	35,757	68,890
Commercial and business schools	373	58,396	38,183	91,549
Total.	4,393	112,216	78,482	190,698

This shows a remarkable increase in the number of public high schools offering instruction in this subject. In 1898 only 1,018 public high schools are reported as offering courses in commercial subjects, and of this number only 139 had 50 or more commercial students each. The demand for these courses at present is increasing and very insistent. In our own state Appleton, Green Bay, Kenosha, Marinette, Merrill, Sparta, Sheboygan, Tomahawk, Milwaukee, Racine, Oshkosh, and a number of others are offering commercial courses pure and simple.

The present view of commercial education held by the best business men and educators is that it should not be a preparation for merely clerical duties, but should be to a large extent a preparation for the direction of business, and should also accord a fair degree of liberal training. The Educational Commission of the city of Chicago, appointed by Mayor Harrison in 1897, recommended "that a commercial high school, with a full, liberal four years' course of study, be established in some central location." And then continued, "If the commercial school is to accomplish the ends we have in hand, the curriculum must be not less broad than that of our public high schools. We feel strongly that a short and so called 'practical' course would be predestined to

Trend of Commercial Courses.

failure and would be an injury rather than a help to what will prove in the near future one of the most important developments in secondary education." * * * "Your commission is so fully persuaded of the importance of this action that we recommend that the first expansion of the school system shall take this form, and that at the earliest possible date a public high school be established with a course of study extending through at least four years, planned to afford a liberal training and at the same time to prepare its pupils for the various kinds of business activity and to qualify them for the highest positions in the commercial world."

An examination of the commercial courses in different schools, however, soon convinces the reader that the high ideal represented by this board is not everywhere realized. The diversity in commercial courses is just as great as in the literary courses. In many high schools the commercial courses differ from the other courses in the same school only by including book-keeping, stenography and typewriting. In other schools some commercial arithmetic, bookkeeping and commercial law are substituted for some other subjects. In some high schools in Rhode Island the first two years of the commercial course are identical with the English course and the differentiation occurs in the third year. However, the progress recently made in this department of education indicates that the ideal set forth in the preceding will be realized and that commercial education will soon receive the attention warranted by the importance it has recently assumed.

CHAPTER V.

DISCUSSION OF IDEALS.

Ever since the time of the sophist of ancient Greece, the Encyclopaedic conception of education prevailed. This was suddenly checked by the Renaissance in which *Single Course of study formerly.* Dante and Petrarch, seeing the power and superiority of the ancient Greek and Roman writings over those of their own time, were powerful factors in supplanting the encyclopaedic ideal by the ideal of training the young to become thorough Ciceronian Latin Rhetoricians. This Renaissance period prevailed until the middle of the nineteenth century.

The first English high school was established for the purpose of meeting the needs of students who did not purpose to attend colleges or universities. Even after *Early High Schools were Finishing Schools.* they had been introduced for some time they were designed as finishing schools. Later on, through the introduction of new subjects, due to the rapid advance in sciences they became enshrined in the hearts of the American people as "people's colleges." A comparison between the meager college curricula of sixty years ago and the modern high school curricula will show some reasons for this designation. A very large gap existed at first between the high school and the colleges. The high school courses were not at all adapted for articulation with the colleges mainly on account of the absence of classics from their program. In the course of time, owing to changed industrial and social conditions, this gap was bridged in places by the modification of college courses and entrance requirements, especially as far as the study of classics was concerned. This brought about a better adjustment to changed conditions, and this relation was still farther improved by the introduction into the high school cur-

ricula of studies regarded strictly as preparatory for higher education.

Correspondence with the state superintendents, or state boards of education, of all states and territories in the United

Courses in State of Unrest Everywhere. States, elicited interesting information relative to the status of high school curricula and ideals.

A comparison of the courses of study now in operation in different sections of our country yields much food for reflection. In some, the classic ideal is dominant, and in all the states the preparation for college is one of the leading functions. Statistics show that about fifty per cent. of the students now engaged in securing a higher education have had their preparatory training in the high schools. This is a remarkable showing when we take into consideration the fact that there were only forty high schools in the United States in 1860, and that the articulation between colleges and universities began at the close of the Civil War. Nearly all of the schools; however, have one or more so-called finishing courses which are not directly preparatory to higher education. In many schools this is supplemented by courses in manual training, domestic economy, and commercial education.

The rapid strides that are being made in the sciences, in commerce, in social and industrial affairs, necessitate a frequent adaptation of the courses of study in operation to existing needs. The public interest manifested in the problem of courses of study betokens a healthful condition. The discussions of courses of study at the fire-side, and in school meetings, crystallize public sentiment as to preferences and aid school men in their formulation..

Two phases of the high school ideals have been solved. It is now granted on every side that the high school is not an institution designed for a particular class of people.

High School a Unifying Factor. All students from all ranks and classes of society are entitled to enter provided they have sufficient scholastic attainments. This makes the high school an effective unifying factor in American social conditions. The second phase refers to free instruction.. It is also

recognized that in the public high schools the instruction shall be free to all the residents of the districts wherein the schools operate. Wisconsin and other states have improved upon this ideal by extending free high school instruction to all students who wish to avail themselves of it irrespective of the fact whether they reside in high school districts or not. This very materially strengthens the unifying power of this institution.

We are far, however, from an ideal condition so far as courses of study are concerned. These are still in the transition period and their status is therefore unsatisfactory. The diversity of opinions relative to ideals for secondary schools is so complex that an endeavor to unify them appears almost a helpless task. The keynote of Germany's ideals is patriotic citizenship. In our country it is patriotic citizenship, character training, preparation for college, preparation for the professions and for industrial pursuits. Our civilization is undergoing almost revolutionary changes and is fast becoming so exceedingly complex that it is no easy problem to determine the proper ideals and functions of high school education.

The "Educational Reformers" have endeavored to solve this problem. They did not, however, separate it distinctly and clearly from the general problem of education.

Educational Reformers. Erudition, pure and simple, held sway for a

long period. In the middle ages it passed through the ecclesiastical form and then through the Renaissance ideal. Montaigne and Rabelais were the first leaders in education who held that education lies in the training of judgment and mental discipline. Rousseau carried this idea to the extreme. Locke maintained that the boy must become a man of the world. According to him, it is well enough to know some books, but the acquisition of manners and knowledge of the world above all are the highest ideals. These men rendered education a great service by furnishing a pedagogical basis. But this alone does not suffice.

Says Dr. De Garmo; "But it now seems evident that if we are to make further progress in education we must add to this initial impulse [due to the study of the educational reformers]

(for which the world can never be too grateful) something of the scientific spirit of the age in which we live. A number of facts point to this conclusion. In the first place, the curriculum of studies is no longer the simple thing it was in Pestalozzi's time. Study after study has been added in obedience to some popular demand or because of the esoteric interest of the school master. What now constitutes our curriculum is a chaos of isolated subjects, which are allowed, not from any demonstrated psychological need, but because of some popular or professional demand. The only proper way to determine which shall be eliminated, which abridged, is to submit the whole to a thorough investigation according to the well developed psychology of the present time, since the primitive systems are wholly inadequate to the task. Such an investigation will necessarily take into consideration the educational value of each subject, when it has received the best possible co-ordination with other branches; it will consider the natural interests of the child, his power of comprehension, the effect of his present acquirements, disposition and leading purposes upon his acquisition of new knowledge, for all of these things will help to decide how the curriculum shall be made up. This is a problem not to be solved by efforts aroused merely by emotion or instinct, for the problem is essentially scientific in its nature."*

At present there is an effort to return to studies and erudition based upon the scientific spirit mentioned. Spenser is the leader of the movement. He holds that it is contrary to the economy of nature that studies for discipline should not be at the same time utilitarian. In this movement Spenser is ably seconded by Butler, Harris and Rosenkranz, Eliot and other noted educators.

In general, the conclusions reached by them are as follows:

Present Tendencies. First: Every course of study should contain provisions for guarding and promoting the normal physical development of the student.

Essentials of Program. Second: It should contain a fair representation of each of the main divisions of

*Introduction to Lange's Apperception, 1893.

knowledge: 1, the sciences, including industrial education; 2, the subjects related to institutions, including duties to the family, state and society; 3, aesthetics, including the languages, literature and fine arts, for the purpose of discovering and systematizing student's interests and capacities, intellectual, moral, aesthetic and constructive; to lead him gradually to emancipate himself from external control and guidance, to become self-directing and to awaken in him a realization of the fact that he owes a duty to God, to humanity and himself.

Third: Each year should be as complete as possible in itself in order that the student may secure the highest value possible from the instruction should he leave at the end of the year.

Fourth: Each subject should be given such amount of time as will insure a fair share of its training value.

In working out the details of their ideals, the educators mentioned follow slightly different courses. Spenser, whose keyword is "Life Education," emphasizes somewhat more instruction in the sciences than Harris or Rosenkranz, whose keywords are "Studies" and "Culture," respectively. All agree, however, on the principles mentioned. It is only on the relative distribution of time to the different phases that differences exist. Of late the trend of affairs was toward Spenser's ideal. This was natural. Science furnishes the best avenue to the industrial success, since it is the practical basis of industrial supremacy. At present statistics for secondary schools show the popularity of the sciences is declining, while that of history and economics has greatly increased.

The second principle is fairly well carried out in our elementary programs if the subjects are pushed to their points of usefulness. If this is done political geography *Pushed to Point of Usefulness.* teaches the ultimate organization of society; politics, religion and industries. It shows how the social structure has become evolved and how it is bound together. The elementary education must have a matrix out of which the rest evolves and geography lends itself readily as the connecting link. In combination with history it shows the de-

velopment of the family, the evolution of man's customs, of which history is the center, and the value of social restraint. The teaching of reading leads to an insight into the artistic basis of the productions under consideration. In order to reach the best results arithmetic should be taught in close connection with manual training; there should not be the separation from the reality that now often exists.

The study of grammar is the first introduction of the child to a partly abstract idea leading on to philosophy; it is the objective side of logic. Elementary education should be a revelation of the world, an opening of the vistas of learning. The matrix of elementary education consists of the formal studies in each branch. The child must have some mastery of the formal studies in order to be able to interpret other phases of studies. Mathematics is the formal study in the realities and language in humanities.

The curricula for high schools are not so satisfactory.

Some of the uniformity now existing in high school curricula has been the result of college entrance requirements, of uniform courses of study recommended by state departments, of the reports of committees of the N. E. A., and of conferences. The courses now offered are a great improvement in kind and number of subjects over those of twenty years ago. Yet, even now very few studies, the languages excepted, are pursued long enough to enable the student to derive therefrom the educational value they possess. While it is conceded by the educators that courses of study should be arranged for the purpose of imparting power to students, instead of information, there is still an abundant violation of this maxim. A subject to yield this training fully must be pursued from three to five times a week for several years. In view of this, think of giving to botany one term! Though weak in the essentials mentioned, the courses show the greatest defect in their failure to provide for direct aesthetic and physical training.

This unsatisfactory condition is not surprising, since there is no consensus of opinion as to what the proper function of the

Reason. high school is. The components of the curricula ought to be based entirely upon what is conceived to be the function of the institution for which they are designed. If the preparation of teachers is to be the sole consideration, one kind of curriculum will obtain; if it is to be a fitting institution for colleges, another program must be formulated; if it is to be a finishing school, a third program must be formulated; if it is to fit directly for business another program is needed.

PREPARATION FOR TEACHING.

Shall one of the functions of high schools be a direct preparation of teachers? In a large number of states, Wisconsin and New York included, the high schools were organized in large part for the purpose of preparing the students for teaching in the elementary schools. In some states this idea still holds full sway. The State Superintendent of Virginia, in his report for 1900-1901, in speaking of high schools says: "We need them to prepare teachers for the common schools. The proportion of college and normal school graduates who are teaching in the public schools is very small. The great majority of our teachers have no other training than that which they received in the district schools." * * * "The public high schools then are to be the hives from which must come the swarms of teachers who are to work in our common schools. The normal, the college, and the university graduates will naturally seek the more favored position, and even if we could command all of them who expect to follow the profession of teaching they would form but an insignificant part of the great number of teachers required for the public schools of the state. We must look then to the public high schools to train the teachers for our common schools."

Fortunately, in some of the states this idea is fast passing away. In Wisconsin, for instance, the state normal schools yearly grad-

No Necessity. uate from 600 to 700 teachers, and this number is rapidly increasing. To this must be added 150 students who now graduate yearly from the 6 county training schools now in operation. The prospect for an extension of this system is good, and with the growth of these institutions, the necessity for engaging teachers with a mere high school training will soon disappear. The high school should not be a place for direct preparation of teachers. Such an ideal as this makes it a professional school. If this is demanded why then does not the high school turn out physicians, lawyers and electricians? This would be just as logical. I concede that the course of study should be so formulated that the professional training for teachers, as well as that for any other profession might be acquired with the least loss of time. This, however, is a different proposition from asking them to turn out finished products. In the high school emphasis must be placed upon scholarship. The subject matter of instruction must of necessity receive the greatest attention. It would be unwise to ask the students to think of the professional phase of the subject. The machinery of the high school may and should legitimately be used for according academic training needed in the teaching profession, but the professional training should be acquired in another school.

I may add here that the academic training received in the high school, when supplemented by professional training in an institution organized for that purpose, will prove sufficient for teaching in common schools. Additional qualifications must be added for graded school teachers. The essentials of the teacher for the secondary school differ in many particulars from that of the elementary school teacher, because the qualities that may insure success in primary education are not sufficient to secure the highest degree of success in secondary schools. In the primary school any person with a high school education possesses sufficient knowledge to enable him to guide the intellectual progress of the pupils. If with such academic preparation there is coupled a sympathetic personality, sufficient firmness to guide the interests of the children, a fair degree of insight into child

nature and child life, and into pedagogical methods, unqualified success in the elementary school is assured.

A knowledge of the history of education is invaluable, since it enables the teacher to profit by the experience of his fellow-men, utilizing their successes and avoiding their errors. It obviates experimentation at the expense of the pupils and thus tends to ensure their best physical, moral, and intellectual progress.

The high school should therefore not be a direct preparation for teaching; it should, however, in its courses give that academic training which best can be systematized and given a professional bent in the institutions that make a business of preparing directly for the teacher's profession.

PREPARATION FOR COLLEGE.

For almost 300 years people have tried to fit the youth for college in the way and manner demanded by these institutions. Only within the last two generations has a serious attempt been made to have secondary instruction serve other purposes. The pendulum of reform swung too far at the beginning. We have seen that the English high school was organized solely as a finishing institution for the youth that did not purpose to attend college.

Recently, however, owing to the changing tone of society the colleges have modified their curriculum by instituting parallel courses of study or the group system, leading to the different degrees offered in these institutions. They also materially modified their entrance requirements. This made possible closer articulation between the colleges and high schools. The gap that formerly existed between them was bridged by the changes made in the college curricula and also by the introduction into the high school curricula of subjects regarded as strictly preparatory for a higher education. At present high school courses are again determined almost entirely in a large number of states by the entrance requirements of the colleges and universities to which they are tributary. In about 30 per cent. of the states the courses of study for the high schools are

prescribed by the state departments of public instruction. They have been formulated, however, with the advice and sanction of local universities and colleges.

To this class belong Wisconsin, Indiana, Pennsylvania, New Mexico, Nebraska, Utah, Nevada, Minnesota, South Dakota, Washington, Oregon, Idaho and Montana. In Michigan, Illinois and nearly all the southern states the high school courses are framed with a special view to meeting the entrance requirements of the colleges. All have, however, one or more courses designed for those who do not purpose to attend college. South Carolina has four different courses, two of which articulate with the colleges. The other two are so-called finishing courses.

In the New England states the courses administered in most of the high schools have been formulated for the purpose of meeting the college entrance requirements. In *New England*. New Hampshire provision is made for Ancient Classical, Latin-Scientific, Scientific, and Mechanical and Agricultural courses.

New York does not compel all schools to adopt the same course of study. The University of the state of New York under whose jurisdiction the high schools of that *New York*. state operate, offers a series of courses that are merely suggestive, and then allows the greatest latitude to each individual school board, but passes upon, and registers the individual courses. The ten suggested courses, divided into three groups, are very elaborate and prepare for the different collegiate degrees, for the professions of law, medicine and teaching, and for industrial pursuits.

The courses for secondary schools are governed to a large extent by the college entrance requirements. In cities they must be approved by the County Board of Examiners. The larger schools have four courses preparatory to the University and two courses not preparatory. Of the courses preparatory to the University of California the Classical leads to the College of Letters; the Latin to the College of Social Sciences, the College of Natural

Sciences, the College of Law, and the College of Commerce; the Literary, to the College of Natural Sciences; the Scientific, to the College of Civil Engineering, Agriculture, Chemistry, Mining and Mechanics.

It will be seen therefore that the ideal under which the high schools were established, has not been entirely lost sight of.

Original Ideal not Lost. There are still so-called finishing courses.

The aim of fitting for college and at the same time being a finishing school led to the building up of parallel courses of study in the high schools. It soon became noticeable, however, that the college preparatory course enjoyed a greater prestige than the other courses. This perhaps was inevitable. The aspirants for college training perhaps by a process of natural selection rank higher than those who look upon the high school as a finishing institution. Stronger teachers were in charge of the classical courses than of the other, since the educational reputation of the high school depended to a large extent upon the standing it could achieve and maintain with the higher institutions for which it prepared. Therefore the instruction in any college preparatory course became more sound, more thorough and more successful than that in the general courses.

That the drift at present is still in the same direction is sufficiently evidenced by statistics showing the absolute number and the percentage of total secondary students and the different subjects in the high school curricula. A study of the following table, showing the number of students in certain studies in public high schools in 1890 and 1900, will prove interesting and instructive. It must be remembered, however, that Latin is studied four years in most high schools and algebra and geometry only a year each. Allowance must therefore be made for this fact in the interpretation of the percentages given:

	1889-1890.*		1899-1900.	
	Students in.	Per cent of total secondary students.	Students in	Per cent of total secondary students.
Latin.....	70,411	31.69	262,767	50.61
Greek.....	6,202	3.05	14,813	2.85
French.....	11,858	5.84	40,395	7.78
German.....	21,348	10.51	74,403	14.33
Algebra.....	92,110	45.40	292,287	56.29
Geometry.....	43,294	21.93	142,245	27.39
Physics.....	46,184	22.21	98,486	19.04
General history.....	55,427	27.31	198,125	38.16

This table appears to indicate a revival of interest in the study of Latin. Upon no other assumption can the increase from 35% to nearly 51% of the total enrollment in the public high schools be explained. This tends to show that more people prepare for college. This view is strengthened by the increase in the number and percentage of students studying Algebra, Geometry and General History, since these form essential components of college entrance requirements.

The study of statistics relating to the preparation of college and university students leads to the same conclusion. In 1895 about 40% of these students had received their preparation in public high schools. The number of these had increased to 45% in 1899 and is about 50% now.

Considerable diversity of opinion exists as to what shall be the relation between colleges and high schools. Formerly this diversity was greater still. Each high school and each college admitted students upon its own terms. Now, however, under state control, college entrance requirements, and the influence of the reports of the different committees appointed for the investigation of this subject a more complete agreement exists. The report of the Committee of Ten, and later the report on College Entrance Requirements have done much to bring order out of chaos.

In a number of states the "accrediting system," known as

*Hon. W. T. Harris in Report of the N. E. A., 1901.

the "Michigan plan," is used entirely. This plan was introduced by the University of Michigan in 1871.
The "Accrediting" System.

The system of admitting to the University without examination graduates of approved secondary schools, has done much in securing a more perfect articulation between the high schools and the University and colleges and has been instrumental in greatly elevating high school instruction. It met with marked favor and is now used by nearly all the universities and colleges in the central and western portions of the United States. Wisconsin may well serve as the type for showing the growth of this plan. This system was adopted by Wisconsin University for the first time in the scholastic year of 1878-79. During that year the Madison, Beloit and Milwaukee high schools were placed upon the accredited list. Prior to that time students could only be admitted upon the basis of an examination. This examination, however, was limited, covering simply the common school subjects. After the year 1880-81 elementary algebra and plane geometry were added. The list of accredited schools at first grew very slowly. One school was added during the school year closing June 30th, 1880, and one the next year. The year 1883 saw three accessions to the list and 1884, twelve. In 1890 the number of accredited high schools was seventy-two. The last catalogue of the University shows one hundred thirty-three accredited high schools in this state alone.

In the Universities and Colleges that have adopted the accrediting system, the high schools must pursue courses that have received the sanction of the college authorities. In addition to this the teaching and equipment for carrying on work are investigated by a member or a committee of the college faculty.

In 1901 the North Central Association of Colleges and Secondary Schools appointed a Commission on Accredited Schools, *Establishment of Commission.* for the purpose of effecting "reasonable uniformity in requirements for admission to college." This body, consisting of forty members equally divided between colleges and secondary schools, at the

annual meeting in Cleveland, March 28, 1902, submitted a plan which will enable any student who has graduated from any secondary school on the accredited list to enter without difficulty any college in the association. The reports recommend that the high school curriculum contain not less than fifteen unit courses of one year each, with four or five recitations of at least forty-five minutes each per week. This number of units, of which three must always be in English and two in mathematics, shall be deemed sufficient for satisfying the college entrance requirements.

It also presents detailed suggestions as to the ground that should be covered in each of the units of the high school course of study, a plan of inspecting these schools, and suggestions for granting college credits for work done in secondary schools beyond the requirements for college entrance.

This plan, if carried into extensive operation, and it probably will be, will still more improve the relation between these institutions. The granting of college credits for secondary school work beyond college entrance requirements is attracting widespread attention, since similar plans have been proposed by a number of leading college presidents. This departure will be discussed in detail in the next chapter.

The eastern colleges have not adopted this system, but judging from present indications it will not be long before it will obtain their favor also. At present Johns *Eastern Custom.* Hopkins admits upon examination only. Cornell and Columbia usually require examinations, but accept the credentials of the New York Regents. The examination at Harvard includes English, 4 points or units; one ancient language, 4 points; one modern language, 2; history, 2; algebra, 2; geometry, 2 or 3; physical sciences, 2. A point is the equivalent of one year's study of five periods per week. Enough points must be chosen then from other fields to make 26 points in all. Four of these must be for advanced instruction.

Harvard has made a new departure in the matter of subjects, giving equal value to all high school subjects that have been

Harvard's Departure. pursued for the requisite amount of time. This places manual training, domestic economy and drawing upon the same basis as literary subjects. The plan thus inaugurated is in line with the progress that has been made in education and is likely to find extensive application.

Examination Board. The Associated Colleges of the Middle States and Maryland appointed a College Entrance Board in 1900. This Board holds annual entrance examinations in all the larger cities and issues certificates to successful applicants. The colleges belonging to this association receive the certificates of the Board in lieu of their own entrance examinations.

The examination fee is \$5.00 per applicant. This is to defray the expenses of the Board. Examinations were conducted June 16-21, 1902, in 125 places in the United States, one in Canada and four in Europe. There were 1,362 candidates in all. Of these 818 wrote in New York, 113 in New Jersey, 95 in Pennsylvania.* Of all the answer books, 56% were rated at 60% or more.

In the New England colleges strenuous opposition to this plan developed at the outset, but most of it has now subsided. All with the exception of Harvard now accept the certificates of the Board in place of their own entrance examination. At the Board examination in June, 147 candidates were examined in the New England states, 58 in Connecticut, 50 in Massachusetts, 24 in New Hampshire, and 15 in Maine.†

This plan is an intermediate step between the separate examination of the eastern and the certificate of the western colleges. President W. R. Harper, at the meeting of the National Council of Education in Minneapolis, June 7, 1902, said: "It is openly asserted by some of the strongest adherents of the College Entrance Board that its work is the paving of the way for the adoption of the more general certificate plan." *

*Second Annual Report of the Secretary of the Board, G. S. Fiske, Columbia Univ.

†Ibid.

* * * "This idea, born in the West, is making its way slowly, but surely, into the eastern section of the country. The indications are quite clear that before long the certificate system in one form or another will be adopted by eastern institutions."

The inspection of high schools by members of college faculties, and the necessary approval of teachers, courses of study,

Effects. apparatus, and other facilities for work make the "Accrediting System" more powerful in affecting secondary schools. Were the fitting for college to become the sole function of high schools, this system is pre-eminently fitted for securing the relationship that should exist between colleges and secondary schools under those conditions.

It is not settled, however, that the college has the sole claim or even first claim upon the high school. It is conceded that ever since secondary education developed in Greece, preparation for entering the higher institutions of learning has been a component in its ideal. The modern American high school, however, was organized for the purpose of serving as a finishing school for those young people who, for any reason whatsoever, did not look forward to a college course. At present it looks as though this institution would be made entirely subservient to the colleges in the course of time. Should this occur, its prestige and popularity may soon vanish. Another institution would then take its place as it has taken the place of the academy. Direct "Fitting for Life" must always remain one of the components of its function. To what extent it should be a "preparatory" school and to what extent a "finishing" school is at present a grave problem. These functions will be discussed in the next chapter.

CHAPTER VI.

FUNCTION OF THE TWENTIETH CENTURY HIGH SCHOOL IN
AMERICA.

So far the discussion has been mainly historical. This chapter will be constructive in part. We have seen that secondary instruction, as conceived until recently, arose in Greece at the time of the Sophists, who added the literary element to the instruction then in vogue. This literary instruction was not designed as preparatory for higher institutions, since none existed at that time, aside from the gymnasia, where those who had completed the course in the palaestra could receive advanced athletic training. No literary element was embodied in the course in the gymnasia since it was assumed that the youth would imbibe additional training for citizenship by attendance at courts, assemblies, etc. The literary element contributed by the Sophists was made later on somewhat subservient to utilitarian ends in Greece. Under the Romans the study of this element for its own sake declined still more in consequence of its adaptation to practical purposes. In Germany in mediaeval times the Rath Schulen,—the direct predecessors of the modern gymnasia, were not at first designed to serve as preparatory schools for higher institutions of learning. Gradually, however, the function of preparing for advanced instruction began to encroach upon the others until in the gymnasia it became practically the sole aim. Some modifications have recently been made in accordance with the spirit of the times. Not only have real-gymnasia and real-schulen multiplied but at present even the thorough classical program of the gymnasia is being modi-

Resume.

fied. The grammar schools and to a large extent the academies of the United States were also preparatory institutions. The American high school was established, as was shown, for another purpose, but recently has become to a large extent a preparatory school. It is true that there has been a differentiation of courses, but the majority of these are designed as college preparatory, while only a few as the commercial and manual training courses are taught as distinct finishing courses.

A suspicion lurks in the minds of most people that more energy and more ability are demanded for preparation for college than for the so-called finishing courses. This *Are Preparatory Courses Superior.* is accentuated by the fact that, as a rule, the strongest teachers in the school are in charge of the former. It is also held by many that the college preparatory courses are superior in training value to the commercial and manual training courses since in the latter about one-fourth of the time is devoted to instruction in stenography, typewriting, office practice, business technique, etc., or to bench work, wood turning, work in metals, etc., leaving only three-fourths of the time to instruction in purely literary and scientific subjects.

I concede that formerly humanistic subjects were superior in content and value to the realities since they were well organized as to content, material and methods of presentation. Instruction in Latin is a good illustration of this point. For centuries there has been a substantial agreement of leaders in, and teachers of Latin, as to what phases of the subject are to be taught in the different years of the course, what material is to be used in each, and what methods are to be employed. As a result of this thorough systematization the results to be derived from the study of this language are generally understood. This condition held for the realities only to a limited extent and not at all for the commercial and the other industrial subjects. It is now conceded by many that some of the sciences at least have already proved their equality with the humanistic subjects as to the essentials mentioned. The same cannot be said of all

the sciences, botany for instance, since the leaders are not fully agreed as to what is the best material and what methods of presentation shall prevail in the teaching of these subjects. The prospect, however, for a substantial agreement eventually in these subjects is bright.

Branches related directly to some of the industries, commerce, manual training and domestic economy included, also have

Progress in Industrial Subjects. made remarkable progress as to content, material, and methods of presentation. Some of

the advocates of this instruction maintain that their training value is fully equivalent to that of any other subject in the curriculum. Prof. Woodward of the St. Louis Manual Training School holds that the graduates of his institution rank just as high in the University studies as do the graduates of the purely literary or scientific secondary schools. The same is said of the graduates of the Manual Training Schools of Philadelphia and Chicago.

This view is confirmed by leading college and university presidents. President W. R. Harper, says:

Views of College Presidents. "Our experience in the schools connected with the University of Chicago leads me to the conclusion that man-

ual training in due proportion in the elementary and secondary schools gives breadth and power which become an effective means in higher education. Nor is this true merely in the case of those who are pursuing courses in engineering; other things being equal, every young man and young woman is the better fitted for the higher work of the university for having trained hands and the power to plan and execute which comes through manual training."

President D. S. Jordan writes: "We have a number of graduates from manual training high schools among our students, and we find them fully capable of holding their own with the graduates of classical high schools."*

*Hon. L. D. Harvey, Commissioner's Report, pp. 71 and 73.

It is now acknowledged that instruction in industrial branches is a most excellent training in accuracy and correctness of thought, in determining conditions, in adapting means to ends, in drawing conclusions and in stating these accurately and concisely and using them effectively. So far as the training value is concerned all subjects under the same conditions may be said to be practically on a par. Each subject can and should be utilized for teaching the youth to think. The measure of his success will be found, in the college as well as in the other walks of life, not by the number of facts acquired so much as by the power of original thought developed in dealing with problems and conditions as they arise. He who has learned to use his natural talents and who desires to use them will attain the ends and purposes at which he aims.

The making of a working drawing of a model and the reproduction of that in wood or metal involves as severe a discipline as does the mastery of a topic in grammar, in history or in the languages. In addition to this discipline the former develops control of the hand and skill in its use which will be of value in any field of work where manual skill is a requisite. It is evident that the hand can do nothing without the guidance of the brain, therefore an alert brain is essential to success even in the lowest menial work. On the other hand no acquisition is perfect until it has found expression. The expression therefore of an idea in any of the standard forms reacts and reinforces the mental alertness and vigor.

It is conceded that the educational value of a subject determines its fitness for a place on the curriculum. Some subjects are retained mainly on account of their culture and training, and others on account of their utilitarian values. On a preceding page it was pointed out that it is against the economy of nature for studies to exist which possess utilitarian, training, or culture value only. The industrial subjects are utilitarian to a great extent and yet furnish valuable training. At times the knowledge that a subject furnishes may be valuable in itself and its acquisition may

then yield the highest kind of training. The discussions of relative merits of subjects as preparation for college or operation for business lose therefore much of their force. A good preparation for life is also a good preparation for college. Says President David S. Jordan in advocating the extension of manual training in secondary education side by side with the classical and equally open to all who can make use thereof: "If each is a good preparation for life, each is also a good preparation for college, and the colleges and universities of the United States should recognize this fact in their entrance requirements."*

By preparation for life I do not mean a direct preparation for any trade or occupation. By it I mean a preparation affording a liberal training that produces symmetrical development and gives a fairly broad outlook on the world of nature and of man and leads to the varied interests of life. This training must be adapted to the acquisition of technical skill required for the pursuit of business with the minimum of time and effort and must also serve as a preparation for instruction in the technical school for those who purpose to become masters and leaders in the industrial world. This must be the guiding principle for those for whom the high school is to be the finishing institution. For them a course of study must be given that embodies a fair proportion of subjects whose content is valuable in itself as knowledge and also furnishes the training needed by the youth. It would be unwise for the high school to attempt to bestow the special information and dexterity demanded in the various pursuits of business. Experience has shown that these are best and most speedily acquired by special apprenticeship following a liberal education. At the same time no high school does its duty if the training it accords its students does not enhance their efficiency in any vocations they may subsequently follow. The course however must also contain a sufficient number of subjects that may serve as a foundation upon which higher instruction and higher training may be built.

*Hon. D Harvey, Commissioner's Report, 72.

In working out a scheme of courses which shall lead to the varied interests of life, many difficulties are encountered; these are insurmountable by parallel courses of study, no matter how well balanced. Some of the difficulties will probably be obviated by elastic courses centered around a core of studies selected for their general value. A mastery of the subjects in this core should be required of all pupils, but with them as center, electives should be provided which will make up different courses leading to that interest in life for which the student's capacity and inclinations are best adapted. This will be discussed more fully later on under electives.

It is likely that under this plan the distinction between the college preparatory and finishing courses will largely vanish.

We have seen that even within the last few decades colleges rigidly demanded a mastery *Progress in Articulation.* of the classics as practically the chief requirement for admission. Only recently have these requirements been modified and scientific subjects are now practically on a par with the classics. A course in manual training now counts in Harvard College toward the satisfaction of entrance requirements. This progress augurs well for the speedy solution of the problems looking toward perfect articulation.

FUNCTION OF THE HIGH SCHOOL.

The foregoing is indicative of the trend of affairs and it is likely that the colleges in the near future will admit as equivalents any subject in the high school course that has been pursued by the students under approved instruction and approved facilities for the work for four or five periods per week for at least one year. The progress that has been made in this direction is certainly very gratifying. If this adaptation of college entrance requirements to high school instruction continues, a very difficult problem will soon be settled. Secondary education now takes the pupils onward to higher realms from the places where they are left with their elementary training.

Higher education in the same way eventually will take any student who has passed through a course in secondary training at the stage where that leaves off and advance him to still higher attainments.

The function of education in general is to fit the child for leading a happy and useful life in the civilization into which he is born. To this end it must get the children to appreciate their powers, as well as their limitations, and must give them the power to help themselves. The high school must emphasize and intensify this aim. The horizon of the child's knowledge and his ideals of life and conduct must be widened. It must produce refined tastes and a liking for the elevated pleasures derived from habits of intellectual effort and interest in great problems. It must open the storehouse leading to the world's knowledge, hope, desires, experience and aspirations and must beckon the student onward and upward to higher realms. It should inculcate the worthy ambition to rise as high as circumstances will permit, and send out into the business world boys and girls prepared for work, and into the colleges and universities and technical institutions, those who desire additional culture or intend to fit themselves directly for the learned professions or for leadership in industrial pursuits.

What will be the effect of such a plan on the spirit of the school? Europe has special schools for each of the different lines mentioned. In Germany the demand for *Einheit Schule*. Einheitschulen was especially strenuous. It has been believed there that in order to have a thorough classical school, the whole atmosphere of the school must be thoroughly classical. Even the environment is, where possible, utilized in intensifying the classical spirit and atmosphere in which the student lives. It is held that no other ideal should be admitted under the same roof since this would interfere with the fullest development of the classical spirit. Practically the same arguments are used in defense of the system in other schools.

Even here, in a few places in accordance with European customs separate schools are maintained for separate ends. The Boston classical high school, the Philadelphia and Chicago commercial high schools and the Toledo and St. Louis manual training schools belong to this class. But on the whole we endeavor in the American high school to have the various ideals live together. In it we find students preparing for the industrial pursuits side by side with those preparing for the colleges.

Is it well to mingle these ideals? If the conclusions reached in the foregoing paragraph are correct, and there are good reasons for thinking they are, little is lost by having these ideals under the same roof, while there are distinct losses where the ideals are kept separate.

The schools with separate ideals intensify still more the social stratification of the population. Their students do not come into direct contact with the student body in schools having different ideals and therefore do not fully appreciate the points of strength in those other students and those other ideals. The son often follows the training of his father and this again accentuates the stratification of society still more. In America danger lies in a stratification on the basis of wealth, and signs indicate that this is likely to prove a bad form of social separation. It therefore behooves us to use every legitimate means for the purpose of unifying the different strata and interests, and this is secured in large part by the intimate contact of students in the same school. The friendships there contracted, the exchange of opinions between the members of the same class during the school periods and of different classes during the intermissions will do much toward bringing about that amalgamation of interests so desirable.

RECLASSIFICATION OF SCHOOLS NECESSARY.

It is perhaps difficult for the high school to realize these diverse aims and ideals under existing conditions. More time for the high school courses is a pre-requisite. A re-classification of schools, therefore, becomes necessary before much progress

can be made. It will not be difficult to make a revision, since a wide spread belief exists that our classification at present of the elementary schools of six years, grammar school course of two years and a high school course of four years should be modified. There is a feeling in some sections that the grammar school grades should be abolished entirely. I think this would prove a wise step. The present grammar school has served a useful purpose in the past. It formed an extension of the elementary course and served as a finishing school for many children. It induced many pupils to remain in school longer and thus receive a better preparation for the active duties of life. Many of these would have dropped out earlier had not the grammar school existed. But conditions have greatly changed of late. Statistics gathered in a number of cities show that nearly 50 per cent. of the pupils in the graded schools now finish the grammar course and this percentage is ever increasing. Most parents have now awakened to the necessity of giving their children the time and opportunity for a good education. A large percentage of those who finish the grammar school course do not enter the high school. Many drop out merely in accordance with the dictates of tradition, which holds that the elementary school furnishes all the education needed for the mass of the people. If the grammar school were absorbed by the high school, the chances are that a larger percentage of high school students would finish the course. It is generally understood that schooling for eight years is a necessity. Most parents therefore would hesitate to take their children out of school after the completion of the work for the sixth grade. After high school work is begun continuous work along the lines of interest, and the associations formed in the first two years of the six year course would prove powerful aids in keeping the students in school until the course is finished. Even if they should drop out before the course is finished they will have received a great benefit, because they will have been taught by teachers of wider experience and stronger grasp.

It may be of interest to note here the movement by several of the leading universities in the United States to give to the high schools the first two years of college work, *Shortening of College Course.* as is the custom in the Gymnasia of Germany and the Lycees of France. This recommendation grows out of a desire to adjust some difficulties, particularly in regard to the increase in time required for graduating from colleges and universities, due to the rapid evolution of the American educational conditions since 1860. As one result of these changes the content of the A. B. degree has undergone great alterations and the degree has been elevated in the leading universities at least two years in advance of what it was in 1860. Much of the work formerly done in the colleges is now completed in the secondary schools, yet, in spite of this, the requirements for graduation from college courses have until recently been held strictly four years in advance of the college entrance. In consequence the time for admission to the college courses and the graduation therefrom has been materially advanced. At Harvard and Yale the average age of students at entrance is now nineteen and at Michigan University it is one-half year higher.

So far as statistics are available they show that the average age for entrance and for graduation has increased one year from 1860 to 1880 and from 1880 to 1900 another increase of one year has been made. Columbia College* has fully worked out these statistics and they agree with the statements here made. In consequence of this, a young man who takes a college course and then professional training is unable to begin his life work before he is 28 or 29 years of age. Senator Hoar, in speaking of the existing conditions, said: "The average professional life of the lawyer or clergyman is from one-tenth to one-eighth shorter than when I was called to the bar, or in the days preceding me. A young man who is to be a preacher

*Pres. N. M. Butler, Educational Review, Vol. 24, page 210.

should be in the pulpit by twenty-four and the young man who is to be a lawyer should have an office of his own at that age." In Germany and France the young attorneys and doctors are prepared for their work and establish their offices at 23 or 24 years, and in general we have to admit that their preparation is fully equivalent if not superior to that which is given in our own country. In consequence of the lengthening of the courses many young men enter the professional schools directly after they have finished their secondary school training. This certainly is not wise, yet we ought not to censure them under existing conditions. John Abbott graduated before he was seventeen. Longfellow at eighteen, Franklin Pierce at nineteen and Melville W. Fuller at twenty. "Nearly all the distinguished alumni of Bowdoin College graduated at about the present average age of entrance, and were well launched on their professional careers at about the age at which our students now graduate,"* says President Hyde of Bowdoin College. President Eliot of Harvard stoutly maintains that a man should be through his professional schooling and settled down and married by the time he is 25.

As a result of this pressure on the part of those desiring to get into their life work early, Harvard College has modified its

Three Year Course. program in such a way that a person can take the baccalaureate degree in three years. The

Wisconsin State University has also made provisions for permitting the same course, provided the candidate pursues work during the summer sessions of this institution. The same stress is recognized by the Association of American Medical Colleges which now gives one year's time credit† to persons holding baccalaureate degrees and this permits them to finish the course in three years.

At the sixteenth conference of academies and high schools at the University of Chicago held November 7th and 8th of the

* Pres. N. M. Butler, Educational Review, Vol. 24, page 210.

† Catalogue for 1901, Milwaukee Medical Colleges, pp. 12 and 13. See also catalogue of other colleges belonging to the association mentioned.

current year three committees of seven members each were appointed for the purpose of investigating this problem and of reporting ways and means of its solution at the special meeting of the conference to be held in April, 1903. In speaking of this work Dr. Harper said: "This is an undertaking of great importance. It is something that is in the air—this demand for a reduction of time. Every educational paper mentions it. We have to meet it. This action means that this educational conference is undertaking a most important investigation. Some other body might do it just as well, but as we have undertaken it, let us all work together and let the committees have the aid of all members of the conference."

It is likely that within the near future such a plan will be in extensive operation. Superintendent E. A. Gastmann of Decatur, Ill., reports that such a course has grown up by accident in his town and shows that the attendance in his high school is much larger in proportion to the school population than in any other town in Illinois. The graduates of that high school are reported as doing well in advanced studies in the university. A seven-years course has also been in operation for several years in one of the Kansas City secondary schools.

The adoption of such a course will probably mean that the baccalaureate degree will be given in colleges and universities

at the close of two years' study; but with this question we are not directly concerned. It

Effect on Colleges. might, however, be well to consider that so long as the universities undertook very little graduate work it was desirable to make the requirements for the baccalaureate degree as high as possible. Conditions, however, have materially changed, and the granting of the degree at the close of the two years' course, based upon a modified course in the high school, will not in any way debase the value of the degree. This will enable the universities to concentrate their energies upon graduate work. Statistics showed that in 1872 there were only 198 graduate students; in 1880, the number had increased to 400; in 1890 to 1,717; in 1895 to 4,060; and

in 1900 to 6,000. Under such a plan as proposed, the ratio of increase will be even faster in the future than it has been in the past, and this will give the universities still more scope for advanced higher instruction.

The extension of the four year courses to six years greatly simplifies the problem of courses of study to meet the needs of all. It permits a good combination of required subjects with suitable electives.

Electives. The introduction of electives means specialization. The questions, therefore, of its desirability and extent are very important ones. Some educators hold that it is a waste of time for society and an imposition on the individual to make the student spend the years when he is most teachable upon a subject whose full training he cannot reach, when he might have spent those years in the study of subjects that would have resulted in noted achievements for him. They hold that the elective system fosters scholarship because it gives free play to the natural preferences and aptitudes and makes possible enthusiasm for the work. It is also claimed that the education will become broad and liberal under this system, since the enthusiasm engendered in the pursuit of any one line invariably leads to side excursions into other fields for the purpose of throwing some light upon the important topics in the major study. The opponents of the elective system hold that it will result in one-sided development, that the student needs the discipline that comes from the mastery of subjects not entirely to his liking, and that the harmonious development of all his powers can be acquired only through the mastery of definite subjects designed for this end. The assumptions are that what has been a good course for many is likewise a good course for all, and that there is an ideal curriculum of study complete and perfect in itself.

I heartily agree with what has been stated in favor of the elective system so far as colleges and universities are concerned. In the elementary school, of course, there should be no electives. Specialization, at too early a period, results in one-sided development, and in the loss of power to see things

in their proper proportion, as well as in loss of sympathy with learning as a whole. The function of the elementary school is the harmonious development of the intellectual, moral and physical powers of the child. The same is true to some extent of the secondary school. But in such an institution as outlined, the elective system might well begin in the third year and be gradually extended under wise guidance.

A wise election is at all times difficult with parallel courses, and more particularly so at the beginning of the present

Parallel Courses. high school course. Few pupils upon entering the high school really know what they are going to do when their course is finished, and

many parents do not know what course they wish their children to take. As a result, under existing conditions, with all the advantages incident to parallel courses of study, the pupil often finds when he is half way through the high school that he has been pursuing a course unsuited to his abilities and future prospects. Then if he desires to change, he must make up all subjects in the new course not regularly in the old. This is very discouraging to him. The plan of elective studies will do much to obviate this defect. In our "land of liberty," with its varied resources and capacities, no teacher or school officer, or parent for that matter, is endowed with sufficient foresight to choose wisely the course that will best fit the pupil for the career he will pursue when he arrives at manhood. The choice of electives often determines a boy's future career; hence, it is important that it should be made at a time in the school course when he has had opportunities to make excursions into the fields of knowledge for the purpose of discovering his preferences and his aptitudes. After he has been under the direction of skilled teachers and an experienced principal for two years, some help may rightly be expected of them in the election of suitable subjects, since they will have had an opportunity to study the student's preferences and aptitudes. Parallel courses of study are, therefore, not adapted to the best interests of the pupil. The group system, consisting of a core of subjects, with suitable electives, after the second year of high

school work, is far preferable, since it obviates the difficulties inherent in the system of parallel courses of study by its elasticity and adaptation to individual needs.

CONSTRUCTION OF COURSES OF STUDY.

A definite program that shall meet the needs of all of the schools cannot be formulated, since these needs will vary with the locality and with the times. In formulating a program in accordance with the principles laid down on pp. 75 and 76, it becomes necessary to extend the time now devoted to the subjects, for the purpose of allowing for mental growth. This will obviate the necessity of making many branches informational subjects pure and simple, as they must be under existing conditions. It will keep the mind of the pupil longer in contact with the subject, giving him an opportunity to allow his consciousness to play about the different phases.

The following is a general course of study that may be adapted to the needs of the individual:

Kind of school.	Age.	Purpose.	Subjects.
Kindergarten	5- 6	To secure freedom...	Conversation, picture reading, story telling, games, singing, nature study, drawing, construction.
Elementary school....	6-11	Three years spent in learning to do, and three years in learning to see.	English, reading, writing, number work, drawing, construction, games, music, literary gems and productions, geography, languages, literature, arithmetic.
High school.....	12-18	To secure a liberal education.	English, history, geography, languages, music, art, mathematics, sciences, economics, gymnastics, manual training, domestic economy.

During the first two years a fairly rigid course embodying a fair representation of each of the great groups of knowledge heretofore mentioned, should be followed. Some options may be permitted during the third year. During the last two years the course should be practically elective throughout, depending upon what the student purposes to do after graduation. The electives may embody two year courses of from two to five

hours per week in Latin, German, French, mathematics, natural science, biology, psychology and ethics, literature, history, sociology, art, manual training, domestic economy, oratory, games and athletics, reviews of common branches.

The foregoing general course is the ground work upon which particular courses adapted to the needs of the locality and of the pupils, may be based. One is appended here for the purpose of illustration. It is an adaptation of a course that has been used in one of the school systems of the state, where it has given excellent satisfaction, and where the course as given below can be successfully administered. I do not expect that it will meet the approval of all readers, and desire to reiterate that it is inserted here solely for the purpose of showing how the general course given on the opposite page may be adapted to the needs of a particular community.

KINDERGARTEN.

Age, 5-6. Fifteen hours a week.

Conversation, picture reading, singing, story telling, drawing, construction, games.

ELEMENTARY SCHOOL.

First Grade.

Age, 6-7. Seventeen hours a week.

Reading.—1. Instruction by the sentence, word and phonic methods. Use objects, pictures and blackboard. Follow with charts, and finally use the First Reader.

2. Supplementary reading; long and short sounds of *a* and *e*. Use every natural device, as colored crayons, objects, questions, etc., to awaken interest. Secure good articulation and expression.

English.—(a) 1. Conversation suggested by objects and pictures in reading, nature study, drawing, etc.

2. Reproduction of historical and other stories, myths, and fairy tales, such as Cinderella, Mrs. Wiggin's Story Hour, Scudder's Fables.

3. Description of facts observed ; memory gems.
4. Correct use of *is* and *are*, *a* and *an*.
 - (b) Stories about the boyhood of great men.
 - (c) Geography. Study sand, clay, fruits.
2. Place.—Use objects to teach the terms, right, left, above, below, etc.

3. Direction.—Exercises in direction, beyond, toward, etc. Cardinal points.

Writing and Drawing.—1. Blackboard work,, copying from blackboard ; proper position of body and hand.

2. Clay modeling.
3. Paper folding and cutting.
4. Free-hand drawing.

Singing and Games.—1. Appropriate songs, learned by rote ; the scale learned ; motion songs.

2. Games.

Second Grade.

Age, 7-8. Eighteen hours a week.

- Reading*.—(a) 1. Finish first reader ; second reader begun.
2. Supplementary reading; long and short sounds of all vowels ; training in articulation, inflection and expression. Endeavor to make the reading as much like good conversation as possible. Get the thought.
(b) 1. Mastery of all words in regular readers and texts ; work to be oral and written.
2. Keep lists of words frequently misspelled and mispronounced, and give drills from the list.

- English*.—(a) 1. Review of First Grade work.
2. Conversation, description and dictation.
3. Hiawatha's Childhood. Short memory gems.
4. Nature study and history.
5. Reproduction of stories and myths.
6. Correct use of *was* and *were*, *this* and *that*, *these* and *those*, of forms of *freeze*, *tear*, *write*, *go*.
7. Terminal marks.
(b) 1. Review First Grade work.

2. Weather—Rain, snow, ice, clouds, sun. Form and use.

3. Plants—Wheat, oats, coffee, rice. Growth and use.

Plant a few seeds in the school room and have pupils observe.

4. Animals—Cat, dog, horse, cow, squirrel, mouse. Form, food, use, covering, dwelling, adaptation of body to life, stories about their habits.

5. Diagram of school room, house and grounds with points of compass.

6. Seven Little Sisters. Read to class.

(c) 1. Time by the clock.

2. Parts of the body; five senses.

French or German.—Conversation.

Number Work.—(a) 1. Exercises in numbers; notation and numeration to 100.

2. Easy fundamental operations in sums, minuends, products, and dividends not to exceed 20, and the multipliers, subtrahends, and addenda up to 4 or 5.

(b) 1. Notation and numeration to 1,000; tables of 2's, 3's and 4's so far as needed in 2.

2. Fundamental operations. Easy problems.

Writing and Drawing.—(a) Blackboard work; copying from book; use pencil and paper; secure legibility.

(b) 1. Free-hand drawing.

2. Clay modeling; paper cutting and folding; form study.

3. Free expression in stories illustrated.

Singing and Games.—1. Review First Grade work; new songs, staff.

2. Intervals of the scales. Music chart.

3. Games.

Third Grade.

Age, 8-9. Eighteen hours a week.

Reading.—Reader; supplementary work; spelling; meaning of words by definitions, synonyms or use in sentences.

English.—(a) 1. Review work of Second Grade. Outline for history and nature study.

2. Memory gems.

3. Conversation, description, narration, and dictation.
4. Stories reproduced. Seven Little Sisters Prove their Sisterhood.
5. Terminal marks; common abbreviations; common irregular verbs; correct use of forms of personal pronouns.
 - (b) 1. Review Second Grade work; bear, lion, fish, robin, insects; corn, potatoes; articles of clothing; occupation of people.
 2. Locate on map places mentioned in stories; geographical forms taught by means of sandboard.
 3. Primary geography. Read in class.
 4. Read Each and All.
- (c) 1. Fifty Famous Stories—Baldwin.
2. Observation of plants as the seasons change.

French or German.—Conversation; reading; writing from dictation.

Arithmetic.—1. Notation and numeration to 10,000; tables to the 7's, four fundamental operations with easy examples.
2. Federal money; easy problems.

Writing and Drawing.—(a) Movement exercises; combinations; pen and ink.

2. Practice blank; copy book.
- (b) 1. Free hand and mechanical drawing.
2. Free expression. Illustrating poems, geography, stories.
3. Form study, paper folding and cutting, color.

Sloyd.

Singing and Games.—Review Second Grade work; new songs; study of intervals continued. Music reader.

2. Games.

Fourth Grade.

Age, 9-10. Twenty hours a week.

English—Reading, writing, spelling, language.

History, 1 hour; Arithmetic, 2 hours; French or German, 3 hours; geography, 2 hours; nature work, $1\frac{1}{2}$ hours; drawing, music and games, Sloyd.

Fifth Grade.

Age, 10-11. Twenty hours.

English, history (2), arithmetic (2), French or German (3), geography (2), nature work, drawing, music, and physical exercises, Sloyd or sewing.

Sixth Grade.

Age, 11-12. Twenty hours.

English, history (2), arithmetic (2),ventional geometry (1), physiology, French or German ($3\frac{1}{2}$), geography, nature work (1), drawing, music and physical exercises, Sloyd or sewing.

HIGH SCHOOL.

First Year.

Age, 12-13. Twenty hours required.

English, Latin (5), arithmetic and geometry (2), French or German (2), geography (1), botany (1), music and physical exercises (2), drawing and manual training.

Second Year.

Age, 13-14. Twenty hours.

English, Latin (5), geography (1), physiography (1), French or German ($1\frac{1}{2}$), history (1), arithmetic, algebra and bookkeeping, music and physical exercises ($1\frac{1}{2}$), drawing, and manual training.

Third Year.

Twenty hours.

English (3), mathematics (3), history ($1\frac{1}{2}$), botany (2), music and drawing ($1\frac{1}{2}$), electives.

Fourth Year.

English (3), physics (3), music and drawing ($1\frac{1}{2}$), history (2), electives.

Fifth Year.

Twenty hours.

English (3), chemistry (3), civics (1), history of literature (1), music and drawing (1½), electives.

Sixth Year.

Twenty hours.

English (3), music and drawing (2), reviews of common branches (3), electives.

REMARKS ON FOREGOING.

The foregoing is to a certain extent ideal, yet it presents no impossibilities. The study of a foreign language will offer perhaps the greatest obstacle to the successful *Difficulties.* operation of the plan at present on account of the lack of teachers qualified to teach this subject in connection with the other work required in the grades. This, however, is no excuse for continuing the present condition of affairs. Only a decade ago libraries and laboratories were practically unknown in the high schools of our state and teachers qualified to carry on work involving their use were very few. When the demand arose for instruction in laboratory work and for the laboratory method in connection with the purely literary subjects, teachers soon qualified for these phases of instruction. We may reasonably assume that history will repeat itself when teachers qualified for the work outlined are in demand.

In the Dewey school, the adjunct of the Chicago University, instruction in French is begun in the kindergarten. The writer when visiting the fourth grade in this institution was much impressed with the ease and facility with which the pupils conversed in this language and read and wrote the same. German is begun later on in the grades and Latin is taught in the grammar grades. Good results are secured in each. In

the city schools of Mayville, Wis., the study of German is begun in the fourth grade. The pupils thoroughly enjoy the work and find it very profitable. In some European school systems the study of foreign languages low in the grades has been in vogue for a long time and is giving eminent satisfaction.

I am a firm believer in the study of some foreign language when it can be begun in the grades. The memory at that time retains most readily the vocabulary. At that period the pronunciation and conversational phrases and expressions also are most easily mastered. Under present conditions much time is wasted in the study of details which are of little value to the pupil and which he forgets within a short time. The elimination of unessential details will therefore give abundant time for the study of a modern language. Experience has shown that the vocabulary, the mechanisms of reading and the simpler principles of grammar and of language can be fairly well mastered in the grades. When the pupil enters the high school he can then take up at once the literary and scientific reading bearing upon some topic in some branch of study. This will aid in acquiring the language and at the same time master some phase of the topic under consideration. This plan also affords time for excursions into the fields of literature of the language studied for its own sake and for the purpose of appreciating its beauties.

Some places have sufficient facilities now for the successful operation of such a course as outlined. When the problem of transportation of children in the rural districts has once been solved, many high schools now small will have an attendance and income large enough to enable them to secure a sufficient number of teachers to offer these courses. Judging from the rapid progress that has been made in high school development during the last few decades, such a scheme may be realized within a comparatively short time.

In the first years of the course instruction in the sciences is provided only for two or three periods per week. It is not intended that the different phases of the subject should be mastered in those years. Instruction in these subjects is in-

troduced there for the purpose of enabling the student to get a bird's-eye view of the problems and material of this subject for the purpose of enabling him to choose more wisely later on the subjects he is to study and which will aid him in getting the best preparation possible for the vocation he intends to pursue. The intensive study of the sciences or other subjects rightly comes during the last two years of the course when a sufficient number of electives to make the 20 hours may be chosen from the subjects enumerated on page 102.

The administration of this course demands an extensive use of alternation of studies. Under the old plan of a daily reci-

Alteration of Studies. tation for each subject only three or four branches can be pursued at a given time.

Where alternation of studies is used a larger number of subjects may be pursued. This gives the student in a comparatively short time a view of the different fields of knowledge and enables him to elect intelligently the studies adapted to his capacities and to his career after graduation. Under the present plan some studies can be pursued only for a short period and hence the student fails to get from them a fair share of the training value they possess. Under the plan proposed, the mind of the student will remain longer in contact with the subject matter, and this play of consciousness on its different phases is valuable in securing the value mentioned. Should the student leave before his course is finished he will have a broader view of the different branches than he could have gained under the old plan. This method has been in vogue in the continental schools to a large extent and excellent results are there secured. It is reasonable to suppose what a German or French boy can do can also be done by an American boy. This view is confirmed by the experience of a number of our high schools where the system of alternating studies has been in successful operation for several years.

OBJECTIONS ANSWERED.

The work outlined may seem heavy, but upon close examination it will not prove so. If the course has been properly followed, the child, on leaving the third grade, *Work not Heavy.* will have the power to read ordinary language, write legibly, and handle with facility and accuracy the fundamental operations in arithmetic. Drawing, another method of expressing and recording ideas, will have been fairly well mastered in the grades; this will greatly facilitate work in botany, physics, and related subjects; it also contributes toward the formation of æsthetic and ethical ideals. The fair start made in vocal music will also prove helpful in the formation of the ideals mentioned. The instruction in nature work throughout the grades assists the pupils in observation, brings them into sympathy with their surroundings, inculcates love of nature, and forms a firm foundation for the instruction in science.

The correlation of literature and history with instruction in language, while serving as material for the latter, also aids in teaching the child to love the beautiful, the good and the true. It forms an exceptionally fine preparation for further work in history and literature.

As a result of the instruction in music, games, and physical exercises he will have formed correct physical habits, in breathing, sitting, standing and walking. These acquisitions will prove a great help at all future times and in all future work.

Questions may be asked as to the purpose of introducing so many subjects in the grades at so early a period. Is it not better to broaden the views of the child by *Many Subjects in Grades.* introducing him to new realms, within his comprehension, to open up new vistas looking into pleasant fields of learning, than to nauseate him with the minutiae of primary studies? It is true, beyond doubt, that a mistaken notion of thoroughness on the part of teachers is to blame for much of the indifference of many children

toward their studies. Partly for this reason the review of common school branches has been placed in the last two years of the high school. The other reason is that the last year is the proper time for reviews. They will prove more profitable. The students have used the knowledge acquired in the study of these branches in studying other subjects and have seen their relation to other branches. In the light of algebra and geometry, the review of arithmetic becomes pleasant and profitable work.

It may be urged also that the high school will infringe under this plan upon the sphere of the university. It is true that

Sphere of University. it would do so at the present time, but judging from the advance made in the high school

and university curricula during the last fifty years, it appears possible that the ideals set forth may soon be realized. With the advance of the secondary education the university will be enabled to assume its proper function of conserving, advancing, and disseminating knowledge, and under the guidance of teachers of great excellence and originality to lead the students who have previously acquired a liberal education into the fields of special learning and research by the aid of libraries, publications, laboratories, and magazines for the purpose of enhancing human knowledge and welfare. It may take upon itself the task of systematizing the knowledge gained by the education in the high school and to give it a professional direction. If this be done, the university may infringe somewhat upon the special schools, but that will be no drawbacks, because in the special schools liberal education is not a prominent component of the ideal. The profession always ranks first, and the systematizing of knowledge second. In the university this would be reversed. As a consequence a larger number of those desiring to enter the professions would secure greater power in the end. Experience and skill in any one phase of the professions are acquired quite readily whenever there is a thorough groundwork upon which they can be based.

Some people think that life is too short to spend time and

money in securing first a liberal education and then a professional training. Yet the course advocated here serves best the interests of all concerned.

Does it Pay? It affords an excellent preparation for complete living anywhere. Experience has proved that not much time is lost by first securing a liberal education, because an advanced or a professional training based upon the fundamentals mentioned can be acquired in a few years. Time and money may be freely expended, therefore, because the time expended will bring far larger results financially, increased happiness to the possessor of such training, and higher usefulness to humanity at large.

The demand, therefore, of certain communities that the high school offer courses fitting directly for business should not be completely met. It is not the function of the *High Schools not Trade Schools.* high school to turn out accomplished clerks, bankers, book-keepers, teachers, or artisans.

Such a course is not desirable. The young in their ardor to earn money frequently press into the field when they would better serve all interests involved by securing that liberal education, skill, and discipline so essential to making their lives effective. Their increased power and superior preparation as the result of such training later on will find more abundant openings for a life of happiness, comfort and of service. The high school training, however, should enable them to acquire the technical skill required for the pursuit of business with the minimum of time and effort. To this end the instruction in those departments leading up to business pursuits must keep close to the realities of life.

Another objection is that a liberal education including the cultivation of the aesthetic faculty, unfits men for the rough struggle of life, and makes them discontented with their lot. Experience does not confirm these conclusions. The cultivated man has many resources within himself which are not dependent upon outward conditions. He is prepared to live a more complete life

under any circumstances. He finds relief and refreshment where the uncultivated finds nothing to meet his wants. This is abundantly proved by the trials and endurance in Arctic expeditions. Men of culture survive others possessing greater physical strength and far more stalwart frames. Cultured women have also proved their great powers of endurance by standing up under the self-denials and privations incident to frontier life when their more robust but uncultured neighbors succumbed to hardships of like degree and severity. Incidents in the Spanish-American war again confirmed this view. The Rough Riders who had been brought up in the midst of the culture and refinement of New York's four hundred, endured the hardships of the camp and field in tropical Cuba as well as, and better than their more rugged but uncultured companions from the western ranches.

Again, it is urged that this training is expensive. I concede that it is, but what of that? This liberal training, the æsthetic phase included, increases the productive power of people in far greater ratio than the expense of securing this training. It is an undisputed fact that the strength and earning power of the world lie in cultivated men, enjoying the highest standard of living. The rude, uncultured nations are always needy and dependent even with their diminished wants. America, England, Germany and France know no famine. The higher the standard of living, the higher will be the motives and the greater the earning power. Culture brings self-respect. This multiplies and elevates wants, and these in turn inspire motives which lead to action toward the satisfaction of those wants. This enhances productive power. A survey of the productive power of the nations enjoying the highest culture and the highest standard of living demonstrates at once that the results of liberal education warrant the expenditure.

VALUES.

English receives more attention than any other subject, and rightly so. In practical importance no other subject is the peer of the English language. To give the child the power to express his thoughts with ease and grace, by tongue or pen, as did the Greeks of yore, is one of the greatest benefits that any school can bestow upon its students.

The study of literature and history receives so much attention because it is one of the chief means for supplementing environment and experience and for counteracting wrong habits already formed and wrong influences thrown around the child. The richest material for this purpose is naturally found in history and literature. These fields are well adapted for this work inasmuch as the historical growth and development of mankind furnishes the necessary gradations of institutions corresponding to the ability and the natural development of the child. They readily lead the student to unbiased moral judgments and awaken his sympathetic admiration for worthy ideals.

These subjects are the main channels through which the experience of the race and right views of institutional life may be acquired. History reveals the organized institutional form as it has been, while literature deals with the individualistic forms as they should be. The former subject develops the sense of causality and fits the student for life in our active political communities; the latter fits for life in all forms of institutions and also aids in developing the student's artistic nature.

Instruction in the natural and physical sciences is given for the purpose of acquainting the student with the field of physical phenomena and of plant and animal life. It will bring about an insight into nature and into the inventions and contrivances by which men utilize her forces and laws. These sciences furnish the best training in observation and in the methods of induction and are largely the basis of our material civilization.

German or French are studied not alone on account of the usefulness of these languages to tourists, commercial travelers, etc., but also on account of the magnitude and *Modern Languages* worth of their literatures. The power to read readily at least one of these languages is an absolute necessity to the physician, physicist, naturalist, chemist, etc. All agree that a reading knowledge thereof is indispensable to the intelligent pursuit of any subject beyond its elements. A knowledge of one or both of these languages or one of them and Latin, will also enable the student to know and appreciate the finer distinctions in our language and will in this way increase his power of expression in thoughts.

In conclusion I will say that a course like the foregoing will be a powerful factor in producing men and women capable of appreciating and reacting appropriately upon the resources and general problems of the times.

The survey of the evolution of ideals in secondary education among the Hebrews, Greeks and Romans of the ancient world, of Germany during the mediæval and modern ages, and the remarkable progress made in America leads one to look hopefully to the future of our high schools. The progress of science has destroyed superstition and has opened the way for truth, the world over; the growth of freedom has removed the barriers of undue conservatism, and has prepared the way for advancing civilization. The progress in the evolution of the high school during the last fifty years indicates that this institution has entered upon a new era,—an era of still greater progress.

“Out of the shadow of night
The world moves into light;
It is daybreak everywhere.”

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